



# **Crime Laboratory Evidence Submission Manual**

**Florida Department of Law Enforcement**

Richard L. Swearingen, Commissioner

2019

# CRIME LABORATORY EVIDENCE SUBMISSION MANUAL

The Florida Department of Law Enforcement Crime Laboratory System has developed this manual for the criminal justice community to provide useful information for submitting evidence to any of the state-operated laboratories.

This publication is intended to provide instructions for special handling and submission of exhibits to a crime laboratory.

You may encounter unusual types of evidence not covered in this manual. Please consult your FDLE regional laboratory for assistance.

In the event of a request that is outside of the case acceptance policy, it is essential to make contact and receive approval via phone or email with the laboratory management prior to delivering the evidence to FDLE. The evidence intake section cannot accept requests that are outside of the case acceptance policy without documented approval.

It is recommended that the submitting agency contact their FDLE regional laboratory to triage evidence on complex cases.

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## I. FDLE Forensic Science Service Locations

### **FDLE Pensacola**

Regional Operations Center  
1301 North Palafox Street  
Pensacola, Florida 32501-2640  
(850) 595-2100

### **FDLE Tallahassee**

Regional Operations Center  
2331 Phillips Road  
Tallahassee, Florida 32308  
(850) 410-7645

### **FDLE Jacksonville**

Regional Operations Center  
921 North Davis Street, Building E  
Jacksonville, Florida 32209-6804  
(904) 360-7100

### **FDLE Orlando**

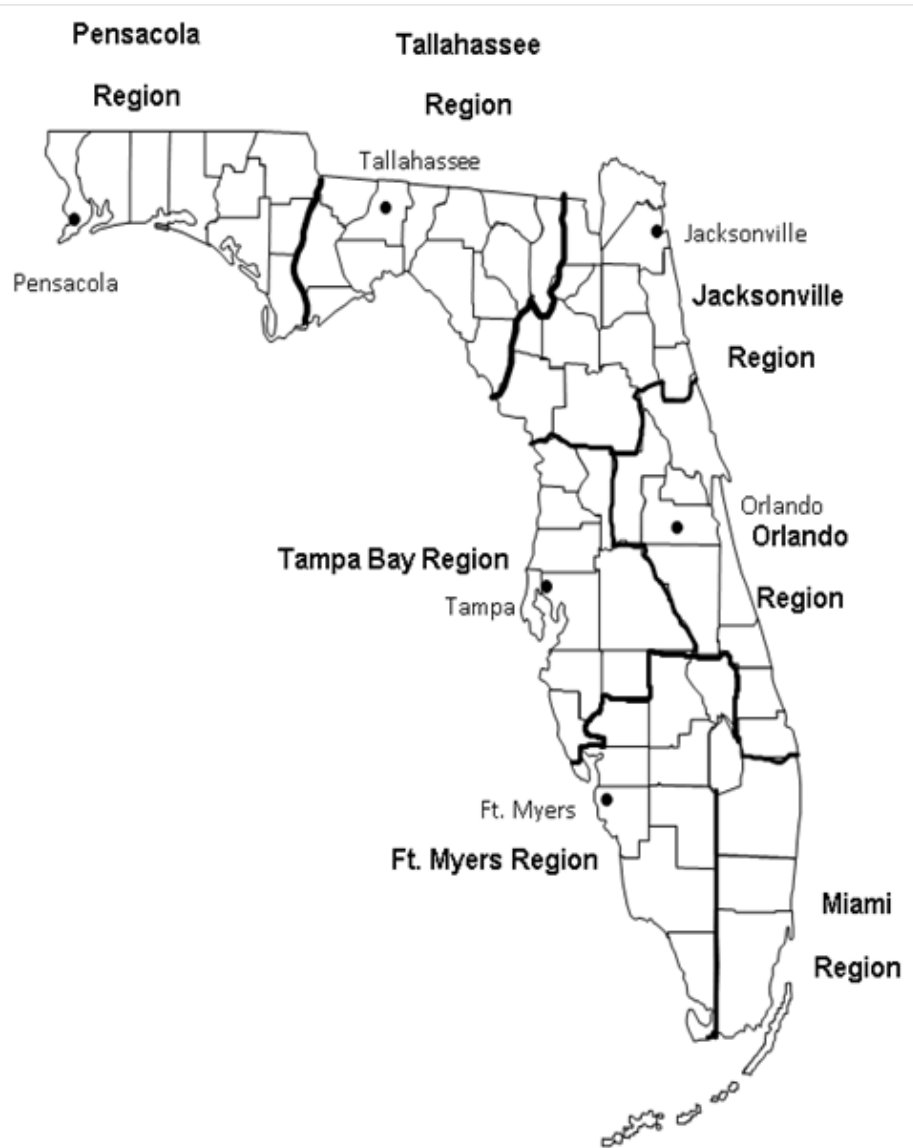
Regional Operations Center  
500 West Robinson Street  
Orlando, FL 32801-1771  
(407) 245-0888

### **FDLE Tampa**

Regional Operations Center  
4211-A North Lois Avenue  
Tampa, Florida 33614  
(813) 878-7300

### **FDLE Fort Myers**

Regional Operations Center  
4700 Terminal Drive, Suite 7  
Fort Myers, Florida 33907  
(239) 278-7170



## **II. Crime Laboratory Services**

### **a. Description of Services**

The Florida Department of Law Enforcement provides crime laboratory services to all local and state law enforcement agencies in Florida for the purpose of providing assistance in criminal investigations and judicial proceedings, including 24-hour crime scene assistance in specific regions. Assistance to federal agencies will be provided with the approval of the Chief of Forensics or designee. Call the crime laboratory in your service area for assistance.

The FDLE Crime Laboratory System provides the following forensic services:

**Biology/DNA  
Controlled Substances (Seized Drugs)  
Clandestine Laboratory  
Crime Scene  
Digital and Multimedia  
Firearms**

**Footwear and Tire Impression  
Forensic Questioned Documents  
Latent Prints (Friction Ridge)  
Trace Materials (Fiber, Glass,  
Paint, Polymers and Fracture Match)  
Toxicology  
Video Enhancement**

All submissions of evidence should be in connection with criminal investigations. Normally all laboratory examinations, court appearances, and travel expenses are available without charge except in a criminal case in which the court orders laboratory services upon the defendant showing cause, as described in F.S. § 943.33.

### **b. Types of Evidence Not Analyzed by FDLE**

- Arson (Explosive/Fire Debris evidence)
- Gunshot Residue on Hands
- Hypodermic Syringes
- Non-human Blood or Body Parts
- Post-mortem Body Fluids
- Soils and Building Material Composition
- Toolmark Analysis
- Vehicle Lamp Bulb Filaments

Please contact your local crime laboratory to obtain clarification on these types of evidence.

### III. Submission of Evidence

When submitting evidence to an FDLE laboratory, the agency is agreeing to all terms and conditions for analysis set forth in the FDLE Evidence Submission Manual.

- The laboratory will determine the best test methods to be used.
- In the event of a public records request, FDLE provides information as required per Florida Statute.
- The report content is designed to best serve the agency but does not list all items recommended by our accrediting body. The items not listed:
  - The report date is the date of creation of the report and not the date of issue. This is due to the current limitation of our laboratory software used for evidence management and report writing
  - Variations to our procedures used in a case are not reported unless they impact the reported results.
  - An additional statement that reported results relate only to the items tested or sampled. FDLE reported results always list the specific item(s) tested making this statement unnecessary.

#### a. FDLE Evidence Prelog

This web browser-based application is solely for the law enforcement customers of the FDLE crime laboratory system. It enables law enforcement agencies to pre-fill out evidence submission information prior to delivery to an FDLE laboratory. Once completed, all the agency has to do is provide the Prelog packing slip when either hand delivering or mailing in the evidence.

The agencies can access the Prelog through the Florida CJNET. Law enforcement agencies can obtain their account information by contacting the evidence supervisor of the FDLE laboratory in their region.

A completed Prelog packing slip containing the following information must accompany the items submitted:

1. Name of subject or victim, if applicable
2. Items of known ownership must have the owners first and last name entered
3. Offense and offense date (if “Miscellaneous” or “Firearms/Weapons” offense selected, must include the specific offense in the case comments)
4. Agency submitting evidence and agency case number
5. Name and phone number of officer submitting evidence and to whom reports should be sent and/or evidence returned
6. List of item(s) and location of item(s) recovered (describe what is questionable evidence and what is known evidence)
7. Description of required information for controlled substances (refer to the controlled substances section of the manual)

8. Type of examination desired
9. Brief summary of the details of the case that are pertinent to the laboratory examination
10. Notes concerning any accidental or intentional changes to the items
11. Laboratory case number if items are additional evidence for a case already submitted to the crime laboratory

It is important that information accompanying all case submissions be as accurate and complete as possible. Prior to submission, please verify evidence descriptions and agency case numbers and verify that names are spelled correctly. Evidence with discrepancies will result in a delay in the examination and may require evidence to be returned to the submitting agency for correction.

Use the laboratory case number for all inquiries to the laboratory concerning the evidence. Reference this number to court officials involved in the case so it can be used on subpoenas.

## **b. In Person Submissions**

FDLE evidence intake is open from 8 a.m. to 5 p.m. Monday through Friday, with some labs closing from 12 p.m. to 1 p.m. for lunch. Make prior arrangements with your local laboratory for evidence delivered outside of the normal hours of operation.

## **c. Submissions by Mail**

An agency can submit evidence by mail to any FDLE laboratory; mailing addresses can be found on page 5. Contributors can use the United States Postal Service (USPS) or a commercial carrier. The USPS possesses certain regulations that affect the mailing of certain types of evidence:

1. Liquid Biological Fluids (Urine and Blood)
  - The leak-proof primary container must be securely sealed in material that is shock-resistant and can withstand pressure changes.
  - Absorbent material must surround the primary container in sufficient volume to absorb entire contents.
  - The secondary container must also leak-proof and be securely sealed.
  - The shipping container must be constructed of a crush-proof material.
  - It is **not** necessary to pack specimens in ice to mail.
2. **Unloaded** firearms may be sent via registered mail.
3. Ammunition may **not** be sent via the USPS.
4. The USPS will **not** transport human remains or body parts.
5. Flammables and hazardous materials have specific regulations governing their mailing. Consult the USPS and the laboratory before sending any of these items to the laboratory.



Commercial carriers may have additional regulations and should be consulted regarding their individual requirements.

Other Mailing Guidelines:

- Pack and seal evidence securely in a box to prevent damage.
- Place Prelog packing slip in an envelope and place with the sealed evidence package inside the mailing container so it is clearly discernible what evidence goes with the Prelog slip.
- Use certified mail and return receipt when mailing most exhibits.
- Controlled substances, firearms, or exhibits of large monetary value are preferred to be hand-delivered. If this is not possible, they must be sent using registered mail and return receipt.
- Blood samples for toxicology testing which are not hand-delivered must be sent by priority mail, overnight delivery service, or other equivalent delivery service.
- Liquid clandestine laboratory evidence may **not** be submitted by mail; **they must be hand-delivered.**
- Ammunition must be packaged separately from firearms.

#### **b. Submission of Vehicles**

- Contact your local FDLE laboratory's crime scene section regarding the submission of vehicles for examination prior to transport to the laboratory.
- Vehicles to be examined internally for DNA, hair, fibers, or fingerprints should **not** be driven. Access to the interior should be limited to reduce the possibility of contamination.
- All other vehicles should be driven as little as possible.
- If it is necessary to transport a vehicle a long distance, deliver it in a covered truck or trailer.

### **IV. How to Collect Evidence**

#### **a. Crime Scene**

The FDLE crime scene sections respond to requests by local law enforcement agencies to process and examine major crime scenes. Not every FDLE laboratory has these capabilities, so please contact your local crime laboratory for information and services available.

#### **b. Evidence Collection Process**

- i. Scene parameters: Incorporate sufficient space within the boundaries of the crime scene to extend beyond where the last item of evidence is located. It is always easier to shrink your boundaries rather than enlarge them.

- ii. Clear all nonessential personnel from the crime scene including all officers not collecting evidence. The more people present, the greater chance there is for damage, loss, or movement of evidence.
- iii. Take care when entering and exiting a scene to ensure that the path utilized is one that was least likely to have been used by a subject(s). This choice protects evidence that may be easily destroyed or moved.
- iv. A crime scene log (list of all persons entering and exiting the crime scene) must be maintained so that elimination standards such as DNA, fingerprints or footwear may be obtained if necessary.
- v. All persons entering a scene where blood and body fluids are present should wear personal protective equipment such as gloves, shoe covers, disposable jumpsuits, facemasks, etc., to prevent exposure to possible biohazards and contamination of the scene. Additionally, the scene should be marked as a biohazard area through the use of barrier tape and signs.
- vi. Designate one or two persons to document and collect all evidence or designate a primary evidence custodian to keep track of what evidence was collected and the location from which it was collected. Placing the responsibility on specific individuals helps avoid confusion if questions arise later as to where the items were found and who found them.
- vii. Document the scene through photography and if warranted, videography, as it appears upon arrival. This documentation is to be done prior to the movement of any items within the scene and prior to the addition or subtraction of any items or persons. All scenes should be documented through written notes and include either a hand drawn sketch or a laser mapping system diagram. Some things to consider when documenting a scene are the location, condition and a description of items of potential evidence, date and time evidence is collected, and anything that cannot be gleaned from a photograph or a series of photographs (environmental conditions, temperature, smells) that could be pertinent to the investigation.
- viii. Use a systematic approach when searching for evidence. Study the whole scene first because the relationship of different items and their location may be important. Search the crime scene area so that hidden evidence is not overlooked.
- ix. Consider what significance the collected items may have and what examinations the laboratory conducts with regards to the items collected. Remember that the items collected should be probative, relevant, and material to the investigation.
- x. Evidence of a fragile nature should be collected prior to evidence that is less likely to be destroyed or contaminated.
- xi. Keep the chain of custody short because each person having an item in his or her possession may be required to testify in court.
- xii. Place each item collected into a separate container. Items that are similar, but are collected from separate locations, should also be packaged separately to prevent

- damage through contact and to eliminate cross contamination. *Refer to the appropriate sections within this manual for specific details on packaging.*
- xiii. Store evidence in a safe, evidence vault, or locker with limited access.

## V. General Packaging and Labeling of Evidence

### c. Helpful Hints for Packaging

- i. Always use new, clean containers to prevent contamination.
- ii. Vials, pill boxes, or match boxes are suitable for most small items.
- iii. Most controlled substance evidence must be submitted in plastic bags. See the controlled substances section of this manual for specific requirements.
- iv. Pharmaceutical/Apothecary packets are useful for collecting most types of trace materials such as paint, glass, or fibers. See the trace materials section of this manual for specific instructions.
- v. Bags or paper can be sealed around the end or over areas of large items, such as tools, safes, and vehicle bumpers to prevent loss of adhering evidence.
- vi. Plastic sealable bags are suitable for small, dry objects not requiring biological, DNA, or trace materials examination.
- vii. **Do not** put damp or biological items in plastic bags as bacteria and fungus may grow and destroy the evidence.
- viii. Seal containers with frangible (tamper-proof) evidence tape to prevent loss, contamination, or access by unauthorized persons.
- ix. Avoid using staples to seal containers as they may tear gloves or puncture the skin.

### d. General Package Labeling Guidelines

- i. Label each exterior container with your agency case number and the item/exhibit number.
- ii. Outermost containers (or visible through outer layer) with buccal swabs, liquid blood and urine, sexual assault kits, and finger/palm print standards must be labeled with the **first and last** name of the individual of origin.
- iii. The frangible tape seal must possess the initials of the person that sealed the container. Place initials across the tape onto the container.
- iv. The minimum size of outer packaging should be at least 5" x 3.75" to accommodate the necessary laboratory information labeling. The laboratory must have at least 2" x 4" of clear space in order to affix the laboratory barcode label and prevent obscuring agency labels/information.
- v. If possible, for cases in which more than one section of the lab will be examining evidence, package the evidence separately for each section to expedite handling within the laboratory.

## e. Safety Considerations

- i. Note any special warnings on the package:

**WARNING: Liquid Blood Inside. Refrigerate upon arrival.**

**WARNING: Hepatitis (HBV) or AIDS (HIV) Positive**

**WARNING: Biological Hazards**

**WARNING: Glass**

**WARNING: Sharps**

**WARNING: Loaded Weapon**

- ii. Put a biohazard warning symbol and warning information on all packages containing:

Liquid or dried blood	Body parts	Evidence contaminated
Body-packed contraband	Body fluids	with blood or body fluids



Figure 1 – Biohazard warning symbol

- iii. Packaging of Sharps

- Hypodermic syringes pose a health and safety threat to both contributors and laboratory personnel and **will not** be accepted as evidence due to the possibility of an accidental needle puncture. Refer to the controlled substances section of this manual for more information.
- Sharps contaminated with blood or body fluids:  
Package in rigid, puncture-resistant, leak-proof container and label with biohazard warning symbol and the words, **WARNING: CONTAINS SHARPS.**
- Sharps not contaminated with blood or body fluids:  
Package glass to prevent breakage; secure knives, razor blades, etc., within cardboard or similar support or in boxes; label with the words, **WARNING: CONTAINS SHARPS.**

- iv. Firearms and Ammunition

- Unload all firearms prior to packaging, if possible.
- Use metal gun safes for submission of loaded firearms. Label with the words, **WARNING: LOADED FIREARM.** Loaded firearms must be hand delivered to a laboratory with a firearms section.

v. Flammable and Hazardous Materials

Consult with the laboratory prior to the transport and submission of any of these items for examination. Batteries must be removed from electronic cigarettes prior to submission to the laboratory.

**Note: The packaging and marking requirements for evidence of blood and body fluids are based on the OSHA Bloodborne Pathogen Standards CFR Title 29 1910.1030, and on U.S. Postal Regulations, Domestic Mail Manual, C010. Other courier services may have additional requirements.**

## **VI. Returning Evidence to Agencies**

Upon completion of examinations, the crime laboratory will return evidence to the submitting agency.

Routinely, evidence will only be returned to a representative of the original submitting agency. However, with direct written authorization from the original submitting agency, the crime laboratory may return evidence to representatives of other agencies.

Large quantities of controlled substances will not be returned by mail. The submitting agency should make arrangements to pick up such evidence at the laboratory.

## **VII. Arson**

FDLE does not perform Arson/Fire Debris Analysis.

For arson cases please contact the State Fire Marshal's Office Division of Investigative & Forensic Services Bureau of Forensic Services or the regional Fire Marshall's Office:

<https://www.myfloridacfo.com/Division/DIFS/BFFEA/default.htm>

## VIII. Biology

The Biology Section conducts the examination and testing of biological evidence through biological screening and Short Tandem Repeats (STR)-DNA testing. DNA can be obtained from biological specimens left at the scene of crimes such as homicide, aggravated battery, sexual assault, hit-and-run, and burglary. The biological specimens most often encountered include blood evidence, semen, and saliva. Buccal (cheek) swabs should be submitted to be used as known reference standards for DNA testing. Dried blood samples may also be submitted as known reference standards for deceased individuals. The biology section doesn't determine the non-human origin of blood or body parts.

Submission of evidence to the FDLE Biology Section signifies agency approval of submitted evidence potentially being outsourced for testing by an FDLE-approved private laboratory, accredited by the ANAB to international and FBI Quality Assurance Standards. In the event FDLE chooses to utilize a private laboratory to enhance throughput and meet the needs of its customers, the submitting agency will be notified in writing.

### a. Case/Evidence Acceptance Policy

A scenario **must** be provided with the submitted evidence. The scenario will establish the value of each item as to its likelihood to provide probative results or an investigative lead. The scenario should include where an item was found and its relationship to the crime in question to determine eligibility for possible entry into the Combined DNA Index System (CODIS). The agencies are notified of the submission, retention and results of the initial search. **DNA profile(s) meeting CODIS eligibility requirements will be entered and maintained (e.g. stored and searched) in the local database and will be uploaded and maintained in the state and national databases subsequent to compliance with the respective search requirements.**

The type and number of items accepted per submission is based on case type. An item is expected to be comprised of one piece of evidence (e.g. one piece of clothing, swabbing of blood from a single area, or one weapon). If items are received packaged together, the number of items in the package will be considered to be the number of items submitted (e.g. pants, shirt, and shoes packaged together will be considered three items). Items such as fingernail scrapings/swabbings collected from an individual are considered one item. For all case types, known standards from victims(s) or subject(s) will **not** count against the number of items that may be submitted.

### Sexual Assault

1<sup>st</sup> Submission:

- 1 sexual assault evidence kit **(per FS 943.326 must be submitted in 30 days)**
- 1 pair of underwear worn by victim at time of incident or immediately after
- 1 condom, if applicable

2 <sup>nd</sup> Submission: (if no probative results obtained from first submission)
<ul style="list-style-type: none"> <li>• Victim's clothing worn at time of incident – limited to 5 items</li> </ul>
3 <sup>rd</sup> Submission: (if no probative results obtained from previous submission)
<ul style="list-style-type: none"> <li>• Additional clothing, bedding, or other relevant evidence – limited to 5 items</li> </ul>

NOTE: “Non-reporting” victims as referenced in Florida Statute 960.28, sexual assault victims who choose not to file a police report, but whose evidence is being stored by a law enforcement entity should not have their sexual assault kit or other related evidence submitted to an FDLE laboratory until the person files a police report and signs a consent form authorizing their identity be released to the law enforcement agency, as per FS 794.024. Non-reporting victims are victims who did not at any time file a police report.

### **Sexual Assault-Homicide**

1 <sup>st</sup> Submission:
<ul style="list-style-type: none"> <li>• 1 sexual assault evidence kit</li> <li>• Additional relevant evidence – limited to 4 additional items</li> </ul>

### **Homicide**

1 <sup>st</sup> Submission:
<ul style="list-style-type: none"> <li>• Limited to 5 items</li> </ul>
2 <sup>nd</sup> Submission: (if no probative results obtained from first submission)
<ul style="list-style-type: none"> <li>• Limited to 5 items</li> </ul>
3 <sup>rd</sup> Submissions: (if no probative results obtained from first submission)
<ul style="list-style-type: none"> <li>• Limited to 5 items</li> </ul>
Subsequent submissions must be discussed with a biology supervisor to develop a case analysis plan.

### **Other Violent Cases (Assault, Robbery, etc.)**

1 <sup>st</sup> Submission:
<ul style="list-style-type: none"> <li>• Limited to 3 items</li> </ul>
Subsequent submissions must be approved by a biology supervisor

### **Non-Violent Cases (Burglary, Property Crime, etc.)**

1 <sup>st</sup> Submission:
<ul style="list-style-type: none"> <li>• Limited to 1 item per subject (blood, saliva, semen, <b>wearer or handler</b>)</li> </ul>
Subsequent submissions must be approved by a biology supervisor

### **Criminal Parentage Cases**

1<sup>st</sup> Submission: (must include)

- Standard from mother or alleged mother
- Standard from father or alleged father
- Standard from the child (product of conception – frozen with no preservatives)

Subsequent submissions must be approved by a biology supervisor

### **Missing Persons Cases**

Please contact a biology supervisor prior to the submission of any evidence associated with a missing persons case.

### **Drug Offense Cases**

Submission of any evidence associated with a drug offense case must be preapproved by a biology supervisor.

Suspected controlled substances must be packaged separately from evidence approved for a Biology request prior to submission to the laboratory.

### **Felon in Possession of a Firearm Cases**

DNA testing will not be performed on a firearm recovered directly from a suspect, suspect's residence, suspect's car, etc.

Submission of any evidence of this nature must be pre-approved by a biology supervisor.

### **Evidence Submission Guidelines by Item Type:**

#### **Touch DNA Evidence**

Touch DNA evidence can be defined as that which typically has no visible staining and would contain DNA resultant to contact with an item such that sweat and/or skin cells may transfer.

Touch DNA evidence is only accepted in association with violent crime cases where no other probative evidence exists.

Touch DNA evidence is only accepted where a high degree of likelihood exists that the submitted evidence will provide probative results or investigative leads (high likelihood established by forensic expertise, witness corroboration, visual monitoring systems, or sound deductive reasoning). Touch DNA will not be analyzed on evidence swabs from counters, walls, light switches, doors, etc. from public locations.

Touch DNA testing will not be performed on bullets and cartridge casings or on any



item of evidence previously processed by another discipline. Elimination standards must be submitted where appropriate.

Items collected directly from subject (e.g. items removed from pockets) will **not** be accepted for examination.

### **Wearer/Handler DNA Evidence**

Wearer and handler DNA evidence can be defined as that which may or may not demonstrate visible staining and would contain DNA as a result of prolonged contact and/or friction with an individual (i.e. collar of a shirt, sweat band of a hat, handle of a weapon).

### **Hair Evidence**

Hair evidence is only processed in association with violent crimes.  
Vacuum sweepings will not be accepted for examination.

### **Urine, Feces, Cerumen, Vomit, Bile or Stomach Contents**

Items with these body fluids will **not** be accepted without approval from the biology supervisor prior to submission.

## **b. Collection and Submission of Evidence**

General Guidelines	<ul style="list-style-type: none"><li>▪ Wear personal protective equipment (PPE) to collect evidence. This protects the collector AND the evidence!</li><li>▪ Wear disposable gloves and change them often while collecting or handling evidence.</li><li>▪ Avoid touching your face, nose, mouth, and hair when collecting and packaging evidence.</li><li>▪ Avoid talking, sneezing, and coughing over evidence. Avoid allowing sweat to drip onto evidence.</li><li>▪ Instruments such as scissors or tweezers should be disposable or must be cleaned thoroughly before and after collection of each sample.</li><li>▪ Air dry items completely, but keep away from fans or extreme heat (e.g. keeping evidence in trunk of car).</li><li>▪ Package items separately in paper bags or envelopes. <b>Never</b> package biological evidence or samples in <b>plastic</b>.</li><li>▪ Mark outermost package with biohazard warning label.</li><li>▪ Refrigerate liquid specimen(s), and mail at beginning of week (ensure receipt of delivery).</li><li>▪ Handle exhibits as little as possible.</li></ul>
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	<ul style="list-style-type: none"> <li>▪ Never mix dried stains (blood or otherwise); collect and package each separately.</li> <li>▪ Avoid processing items for latent prints before submitting to lab for biological testing. The processing will interfere with biological examinations and/or introduce contamination.</li> <li>▪ Evidence obtained through the use of biological material vacuum collection devices will not be accepted for analysis.</li> </ul>
Bloodstain Evidence	Avoid processing items for latent prints before submitting to lab for biological testing. The processing could interfere with biological examinations and/or introduce contamination.
	<p>Liquid Blood (e.g. pool of blood on floor)</p> <ol style="list-style-type: none"> <li>1. Collect a sample with a sterile cotton swab</li> <li>2. Dry at room temperature</li> <li>3. Package in paper bag</li> <li>4. Label with appropriate information (refer to General Labeling Guidelines)</li> <li>5. Seal and initial</li> </ol>
	<p>Dried Blood</p> <ul style="list-style-type: none"> <li>▪ On an item that can be collected, submit the entire item.</li> <li>▪ On an immovable item : <ol style="list-style-type: none"> <li>1. Photograph the object (with any stains clearly visible)</li> <li>2. Cut stain from item (i.e. sofa cushion)</li> </ol> <p style="text-align: center;"><b>Or</b></p> <ol style="list-style-type: none"> <li>1. Swab suspected blood with a sterile cotton swab that is <i>slightly</i> moistened with distilled water.</li> <li>2. Air dry swab/item completely</li> </ol> </li> <li>3. Package in paper bag or envelope</li> <li>4. Label package appropriately, then seal and initial</li> </ul>
Sexual Assault Evidence	<ul style="list-style-type: none"> <li>▪ The victim of a sexual assault should be examined by appropriate personnel as soon as possible following the assault, in accordance with the <a href="#">State of Florida Attorney General Adult and Child Sexual Assault Protocols</a>. Directions and paperwork can be obtained at: <a href="http://www.fdle.state.fl.us/Quick-Links-index/Quick-Links.aspx/">http://www.fdle.state.fl.us/Quick-Links-index/Quick-Links.aspx/</a> .Other standards and evidence to collect: <ul style="list-style-type: none"> <li>- Standards from consensual partner(s)</li> <li>- Standards from subject(s), if applicable</li> <li>- Suspected semen stains (follow collection protocols of blood stains)</li> <li>- Condom:</li> </ul> </li> </ul>

	<ol style="list-style-type: none"> <li>1.If apparent liquid inside, collect with dry swab(s) and allow swab(s) to dry completely before packaging.</li> <li>2.Lay condom on absorbent paper and allow to air dry completely before packaging.</li> <li>3.Package the paper/condom and the swab(s) in an envelope or paper bag for submission.</li> </ol> <p>All swabs and items of evidence need to be <b>completely dry</b> before packaging occurs.</p> <ul style="list-style-type: none"> <li>▪ Swabs collected from the same body area or from the same stain can be packaged together.</li> <li>▪ If underwear is collected during the sexual assault exam, please submit them inside the sexual assault kit.</li> <li>▪ Sexual Assault Evidence kits should <b>not</b> be refrigerated.</li> </ul>
Possible Saliva	<ul style="list-style-type: none"> <li>▪ Collection of Possible Stains: <ul style="list-style-type: none"> <li>- Rub the suspected area(s) with a sterile swab(s) <i>slightly</i> moistened with distilled water. Let swab(s) air dry completely, package in (separate) envelopes, label accordingly, and seal.</li> </ul> </li> <li>OR</li> <li>- Collect entire item and let dry completely, if necessary. Then package in individual paper bags or envelopes, label accordingly, and seal.</li> <li>▪ Cigarette butts from the same container (e.g. ashtray) may be packaged together. Do <b>not</b> package the ashes.</li> <li>▪ Describe to the laboratory possible areas on an exhibit (e.g. right sleeve of shirt) where possible saliva stains may be present.</li> </ul>
Hair Evidence	<ul style="list-style-type: none"> <li>▪ Remove visible hairs from the body or item with forceps and place in a paper fold, label and seal.</li> <li>▪ Known buccal swabs or blood can be used for comparison with unknown hairs.</li> </ul>
Tissue (including fetal tissue) and Bone for DNA Testing	<ul style="list-style-type: none"> <li>▪ Contact the biology supervisor in advance when this type of evidence is necessary to submit.</li> <li>▪ Submit bone and tissue samples for DNA analysis frozen in airtight plastic containers.</li> </ul> <p>All samples must be free of formaldehyde or formalin as these chemicals can negate DNA analysis.</p> <ul style="list-style-type: none"> <li>▪ Ship samples on dry ice overnight.</li> </ul>
Touch Evidence	<ul style="list-style-type: none"> <li>▪ When collecting touch DNA evidence, facial masks, gloves, hair covers, and disposable lab coats should be worn to prevent contamination.</li> <li>▪ Collection:</li> </ul>

	<ol style="list-style-type: none"> <li>1. Rub the suspected area(s) on an item of evidence with a sterile swab(s) <i>slightly</i> moistened with distilled water.</li> <li>2. Air dry swab completely.</li> <li>3. Package in an envelope.</li> <li>4. Label appropriately, then seal and initial.</li> </ol> <ul style="list-style-type: none"> <li>▪ An item of evidence (e.g. gun, knife, steering wheel) may be submitted directly to the laboratory for touch evidence processing. Describe to the laboratory possible areas on an exhibit (e.g. right sleeve of shirt) where the item was touched by the subject(s).</li> </ul>
Evidence Potentially Infested with Insects	<ul style="list-style-type: none"> <li>▪ Insect activity needs to be neutralized prior to laboratory submission. Freezing items that are potentially infested is usually successful; however, it may take up to 2 weeks to be effective.</li> </ul>

### c. Collection and Submission of Standards

The laboratory should have standards from both the victim(s) and the subject(s). Submit these with other evidence for comparison purposes. **When possible, elimination standards should also be submitted for any person expected to have come in contact with the case evidence.** Samples may be obtained without consent from suspects by obtaining a court order, by use of a valid search warrant, or by a search incident to a lawful arrest (*Schmerber v. California*, 384 U.S. 757). Submit buccal swabs or blood samples in all cases, even if another agency has performed examinations. Do not package known standards with evidence (other than victim in a sexual assault kit).

If there are any circumstances where a standard cannot be obtained, please contact the biology supervisor.

Buccal Swabs (Primary Standard)	<ol style="list-style-type: none"> <li>1. Rub 2 sterile cotton swabs on the inside cheek and gum.</li> <li>2. Air dry the swabs and then package in a sealed envelope.</li> <li>3. Label the envelope with the first and last name of the person from whom it was obtained, the initials of the person who collected the sample, and the date. Outermost containers must also be labeled with the name of the individual of origin.</li> <li>4. Forward the sealed envelope to the laboratory as soon as possible. If mailing, use Express mail according to USPS regulations and assure receipt by laboratory the next day.</li> <li>5. Buccal swabs do <b>not</b> require refrigeration.</li> </ol> <p>*Do not collect buccal swabs as standards if the mixing of body fluids through such contact as intimate kissing has recently occurred.</p>
Liquid Blood Standards (Primary Standard)	<ol style="list-style-type: none"> <li>1. A qualified clinical technician should collect approximately 5 milliliters of liquid blood and place the sample in a collection tube with a lavender or purple stopper (For a blood</li> </ol>

	<p>alcohol or drug test, refer to the toxicology section for proper sample collection).</p> <ol style="list-style-type: none"> <li>2. Label the vial with first and last name of the person from whom it was drawn, the initials of the person who drew the blood, and the date. Outermost containers (or visible through outer layer) must also be labeled with the first and last name of the individual of origin.</li> <li>3. Package the vial in a crush-proof container that will contain all contents and prevent leakage during handling, storage, and transport. Include absorbent material sufficient to control any leakage or spill.</li> <li>4. Refrigerate, <b>do not freeze</b>, liquid blood samples.</li> <li>5. Mail via Express mail according to US postal regulations and assure receipt by the laboratory the next day. Mark container with the words, <b>WARNING: Liquid blood inside, refrigerate upon arrival</b>. Blood samples need not be refrigerated during mailing.</li> </ol>
Dried Blood Standards (Primary Standard)	<ol style="list-style-type: none"> <li>1. Blood stain cards or spot cards prepared by a qualified entity (e.g. medical examiner's office) should be labeled with the name of the person, initials of the preparer, and date.</li> <li>2. Label the envelope with the first and last name of the individual, the initials of the preparer, and the date. Outermost containers (or visible through outer layer) must also be labeled with the first and last name of the individual of origin.</li> <li>3. Dried blood standards do <b>not</b> require refrigeration.</li> <li>4. Mail via priority mail according to U.S. postal regulations and assure receipt by the laboratory the next day.</li> </ol>
Alternate Known Standard (Secondary Standard)	<ol style="list-style-type: none"> <li>1. An alternative known standard may be submitted if a suitable primary standard cannot be obtained.</li> <li>2. Items that can definitively be attributed to an individual may be used as an alternate known standard. This would include an item removed from an individual or an item known to belong to or come into contact with an individual (i.e. bloody item of clothing, razor, toothbrush, etc)</li> </ol>

#### **d. Limitations of Biological (Screening and DNA) Examinations and Testing**

- The age of dried blood, seminal stains, or possible saliva stains cannot be determined.
- Whole blood transfusions may alter blood chemistry. In these cases, collect an alternate standard for DNA testing such as a buccal (cheek) swab in addition to the blood.
- For sexual assault cases, a standard should be obtained from the victim prior to DNA analysis. If the suspect is known, submit a standard for the suspect also. Submit an elimination standard from the consensual partner, when applicable. Intimate contact such as kissing may lead to a mixture of body fluids. This should be taken into consideration before obtaining a buccal swab to serve as a DNA standard.
- Very old or highly degraded DNA samples may yield results, may give an incomplete DNA profile, or may not yield results.
- Hairs must have a root suitable for nuclear DNA analysis. The laboratory will microscopically examine the hairs to determine if a suitable root is present. The laboratory does not perform mitochondrial DNA testing on hair shafts.
- Caution should be taken when interpreting DNA results from touch evidence. The DNA results cannot answer when or under what circumstances an individual may have used or touched an item of evidence.
- Processing of an item of evidence prior to submission should be avoided. Processing chemicals may interfere with DNA testing and could lead to contamination which will negatively impact the evidence.

## IX. DNA Database Overview

The FDLE DNA Investigative Support Database was created by F.S. 943.325. This statewide database includes DNA samples of persons convicted of any felony offense or certain misdemeanor offenses or arrested for felony offenses and records necessary for the identification of missing persons and unidentified human remains, including samples voluntarily contributed by relatives of missing persons.

Multiple agencies share the responsibility of collecting DNA samples from qualifying offenders, including the Florida Department of Corrections, Department of Juvenile Justice, Sheriff's Offices and those in charge of the county correctional facility. The samples are not considered evidence and are not treated as evidence. These samples are retained by FDLE indefinitely to aid both future and past investigations, as well as, to be reanalyzed when new DNA technologies are developed. DNA Database Swab Collection Kits are available to all law enforcement or criminal justice agencies free of charge and may be ordered by telephone, fax or email. **Do not** use the kits to collect evidence; they are for the collection of qualifying offender specimens only.

Upon receipt of the collection kits, the DNA samples are processed and analyzed. The results of these analyses are entered into the state Combined DNA Index System (CODIS) database. Crime laboratories throughout the state may forward the results of DNA analyses performed on questioned samples from unresolved cases into the state CODIS database for comparison to qualifying offender profiles.

In the event of a hit, or match between a questioned sample and a qualifying offender sample, the results will be reported to the crime laboratory submitting the questioned sample. This provides an aid to the investigation and probable cause to collect a sample from the suspect (suspect standard). This standard is then examined by the crime laboratory which submitted the questioned sample in order to compare the suspect standard to the questioned sample.

### Collection and Submission of Qualifying Offender Specimens

1. Prior to collecting the DNA sample the qualifying offender must be positively identified either through use of the Falcon Rapid-ID Edge device or in the manner specified by the Oral Swab Collection Kit Instructions and Form (FDLE/FOR-005).  
\*The preferred method of collection is with the Falcon Rapid-ID Edge device because it uses fingerprint identification, it improves the efficiency of sample collection, and it allows for streamlined processing of the submission in the laboratory.
2. Once the qualifying offender is positively identified, the following items must accompany the collected DNA sample:

ID Verified <u>With</u> Falcon Rapid-ID Edge Device	ID Verified <u>Without</u> Falcon Rapid-ID Edge Device
<ul style="list-style-type: none"><li>• Printout generated by application</li><li>• 2-D barcode generated by application</li></ul>	<ul style="list-style-type: none"><li>• Completed Oral Swab Collection Kit form</li><li>• Legible inked impressions of offender's left and right thumb in spaces provided</li></ul>

- [illegible]

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## X. Controlled Substances (Seized Drugs)

The chemistry section of the laboratory will examine evidence to determine the presence or absence of controlled substances and the amount of controlled substances present as required by law or by special request.

### a. Case Acceptance Policy

The following item(s) will be tested:

- The item (or group of items) that substantiates the highest penalty scheduled per F.S. 893 or 877.111 per subject, based on the offense selected in Prelog. Items should be submitted with the offense type of 'Drug Offense-Sale/Deliver/Manufacture' unless possession is the anticipated charge. Select 'Drug Offense-Possession' for possession charge submissions.
- The probable cause item if noted in case comments on the Prelog form
- One item clearly associated with each named subject if noted in case comments on the Prelog form

The following evidence will not be accepted without prior approval of the chemistry supervisor:

- Clandestine laboratory evidence (See section XI)
- Drug paraphernalia
- Suspected cannabis exhibits with a total weight of less than 20 grams of plant material
- Suspected mushroom cases

Additionally, please note:

- Clearly indicate to which named subject each item is associated.
- Only drugs and/or drug packaging will be accepted. Items with no probative value such as driver licenses, rolling papers and lighters must be retained by the submitting agency.
- All packaging that contains a suspected controlled substance must be separated for latent print requests prior to submission to the laboratory.
- Each exhibit must be marked with a unique exhibit number and initialed in an easily identifiable manner.

### b. Collection and Submission of Evidence

General Guidelines	<ul style="list-style-type: none"><li>▪ Descriptions of submitted evidence must be clearly documented on packaging <b>and</b> Prelog form.</li><li>▪ Do <b>not</b> combine multiple bags of suspected controlled substances prior to submission to the laboratory. Florida case law requires testing of individual bags prior to combination.</li><li>▪ When submitting suspected Florida Statute 893 Listed Chemicals (e.g. pseudoephedrine tablets),</li></ul>
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	<p>please notify the laboratory whether or not the evidence is associated with a clandestine laboratory investigation.</p>
Liquids	<ul style="list-style-type: none"> <li>▪ For all liquid controlled substance evidence please package in a sealed leak-proof container. For Clandestine Laboratory liquid evidence, follow the guidelines laid out in the Clandestine Laboratory Evidence Section of this manual</li> </ul>
Tablets, Capsules, Powders, and Other Solid Substances	<ul style="list-style-type: none"> <li>▪ Outer Packaging: properly sealed <u>clear</u> plastic bag with a minimum thickness of 3 mils</li> <li>▪ Tablets/Capsules: <ul style="list-style-type: none"> <li>- must be removed from prescription bottle or other packaging which would prevent visual inspection</li> <li>- description must include any markings on each side (or “No Markings”) and a count and/or weight.</li> <li>- description may include shape and color</li> </ul> </li> <li>▪ Powders/Other Substances: <ul style="list-style-type: none"> <li>- substances should be placed in smaller clear plastic bags before being sealed in outer clear packaging</li> <li>- description must include the weight with indication of whether it is with or without packaging</li> </ul> </li> </ul>
Plant Material	<ul style="list-style-type: none"> <li>▪ Ensure all submissions are <b>air dried</b> prior to being packaged. Packaging wet or damp plant material can lead to evidence deterioration that may prevent testing.</li> <li>▪ Package dried plant material in paper bags or manila envelopes to prevent mold and seal all seams properly (refer to Figure 3)</li> <li>▪ Description must include the weight with indication of whether it is with or without packaging.</li> <li>▪ Dirt, growing media and plant containers should not be submitted.</li> <li>▪ Plant counts must be performed and documented in the field when plant numbers are necessary for statutory considerations.</li> </ul>
Biohazard	<ul style="list-style-type: none"> <li>▪ Notify the laboratory if any submitted items have been recovered from a body cavity by marking the contaminated evidence with the biohazard warning label and symbol.</li> </ul>

Paraphernalia	<ul style="list-style-type: none"> <li>▪ Submission to the laboratory requires prior approval of the chemistry supervisor.</li> <li>▪ Paraphernalia must be packaged separately from suspected controlled substances.</li> </ul>
Sharps	<ul style="list-style-type: none"> <li>▪ Package sharps in a puncture proof container</li> <li>▪ DO NOT submit hypodermic syringes. <ul style="list-style-type: none"> <li>- liquid inside of syringes can be transferred to a vial and submitted to the lab for testing.</li> </ul> </li> </ul>
Fragile Items	<ul style="list-style-type: none"> <li>▪ Package appropriately to prevent breakage.</li> </ul>
Field Test Kits	<ul style="list-style-type: none"> <li>▪ Do not submit field test kits as they can leak and compromise the integrity of the evidence.</li> <li>▪ Do not place test kit chemicals directly on items to be submitted to the lab as they may alter the evidence and prevent analysis.</li> </ul>



Figure 3 – Incorrect and Correct Method of Packaging Fresh Plant Material

## XI. Clandestine Laboratory Evidence

This evidence is submitted to the chemistry section of the laboratory and analyses are performed according to state law requirements. If your case is to be prosecuted at the Federal level, submit your evidence to the DEA.

Approval by the chemistry supervisor or designee is required prior to transporting clandestine laboratory evidence for submission to the laboratory. The evidence must be properly selected, packaged, sealed, and labeled for acceptance and analysis by the laboratory. Refer to the following guidelines for proper sampling and packaging of clandestine laboratory evidence:

### a. Submission Guidelines

Should Submit	Should Not Submit
Final end product (i.e., crystals, powders and tablets)	Solvents that are not suspected to contain final product
Precursor chemicals (i.e., pseudoephedrine and ephedrine)	Clandestine laboratory equipment
Liquids suspected to contain final product (submit amount necessary to meet the highest level of trafficking or submit smaller representative sample if official weight was obtained at the collection site)	Chemicals found at the collection site: <ul style="list-style-type: none"><li>▪ Phosphorus (solid or striker plates from matches)</li><li>▪ Iodine</li><li>▪ Strong Acids (found in HCl generators)</li><li>▪ Strong Bases (such as Red Devil Lye)</li><li>▪ Lithium</li><li>▪ Anhydrous Ammonia</li></ul> Contact the proper authorities about storage and disposal of these chemicals.
Bi-layer liquids suspected to contain final product. All bi-layer liquids should be separated prior to submission. Submit enough from each layer to meet the highest level of trafficking. Note that some evaporation can occur during storage.	

### b. Liquid Evidence Packaging:

- All liquid evidence must be submitted in approved containers.  
Example of approved containers: a threaded glass bottle with a Teflon-lined screw cap which is placed inside of a plastic bottle with a screw cap. These are then placed inside a sealed paint can with inert absorbent packing material (such as kitty litter or vermiculite) to prevent tipping.
- Weighing samples at the time of collection is encouraged to get a weight before submission to the laboratory
- Glass bottle guidelines:
  - Use one glass bottle, not multiple, to sample liquid from the same source up to the highest level of trafficking.

- The following table shows an approximate weight of methamphetamine collected in specific size glass bottles. The actual weight of the drug will depend on the density of the sample.

Ounces	Milliliters	Approximate Weight of Methamphetamine
1oz	30ml	30g
4oz	120ml	100g
8oz	240ml	200g

- The paint cans should be no smaller than quart size. It is important that the can is wide enough that its inner bottle(s) can be pulled out for testing without having to tip the can over. Use a gallon size can for the larger bottles.
- Keep collected liquid samples upright and include inert absorbent packing material (such as kitty litter or vermiculite) when the inner glass bottle is significantly smaller than the outer container.



Figure 4 – Sample Containers for Collection of Liquid Samples

## **XII. Digital and Multimedia Evidence**

If a computer is found at your crime scene, do NOT examine the contents or files on the computer. Doing so may jeopardize your case due to the changes made by the computer to the date and time stamps placed on computer files. Use caution in the collection of computer evidence due to the volatile nature of this technology.

The types of computer equipment and digital media examined by the FDLE laboratory include personal computers, various network systems, cellular telephones, various removable media, tapes, digital cameras, and other data storage media. Evidence contributors should contact the laboratory prior to submitting such items to verify acceptability.

The laboratory digital evidence section can perform the following:

- Gain access to information stored on computer systems, media, and related items. This may include recovering passwords or circumventing schemes designed to prevent access.
- Retrieve and preserve information from computers, media, or related items. Information may be in the form of documents, graphic illustrations, photographs, or video projections.
- Attempt to recover information that has been deleted, hidden, or encrypted.
- Provide consultation to agencies regarding computer crimes and seizure techniques.
- Provide training to agencies on crime scene processing of computers and other related topics.

### **a. Collection of Computer Evidence**

1. The following items should be available at the crime scene in order to properly collect the computer evidence:
  - Long, narrow, stick-on labels
  - Blank disks (all sizes)
  - Envelopes and/or paper bags
  - Digital or still camera
  - Computer tool kit
  - Clean metal paint cans and/or heavy duty aluminum foil
2. If the computer is off, do NOT turn it on at the scene.
3. If the computer is on and you want to save information in memory but are not sure how to proceed, contact the laboratory digital evidence section for further assistance. If the computer has a modem or network connection (either internal or external), a communications line may be attached to the back of the computer. Disconnect this line to prevent the deletion of data from a remote location. After the computer is turned off, disconnect the power cords.
4. If possible, photograph the front and back of the Central Processing Unit (CPU), monitor, and keyboard. Many times passwords are written on or around the computer work area. Pay close attention and document any potential password information that is found.

5. Using adhesive labels, attach numbered labels to all cables and their associated connecting points, i.e. 1-1, 2-2, 3-3, etc. (See Figure 5). This includes monitor, keyboard, printer, mouse, and any other item that will be disconnected. Label to simplify reconnecting the system in the laboratory.
6. Disconnect all the cables from the computer and carefully place inside a large sealable plastic bag or cardboard box. Seal item and label as fragile.
7. Removable media require special attention during the collection phase. This media could be found in a variety of locations at a crime scene. Browse through manuals or other papers looking for removable type media. If practical, remove media from manuals and note where found. Removable media should be separated from other items and treated as fragile.
8. There are a number of different types of external drives. If such drives use removable media, the media should be removed prior to packaging the drive for transporting. Removed media should be marked to indicate that it was removed from the drive.
9. If the mobile device has a password or PIN lock, do NOT attempt to unlock the device. There are a limited number of attempts that may be made before data becomes irretrievable.
10. Check with your local FDLE laboratory evidence section for an Electronic Evidence Submission Checklist. Having this checklist filled out by the investigator can assist the digital evidence analyst in recovering pertinent data from the evidence.

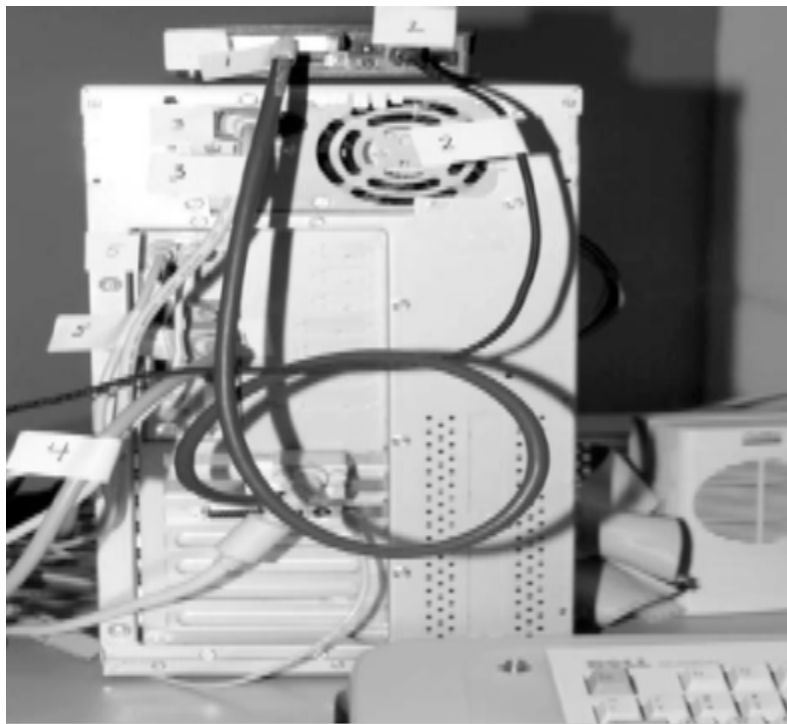


Figure 5 – Using Labels to Number Cables and Corresponding Ports

## **b. Packaging and Transporting Evidence**

1. Computers and internal components are delicate electronic equipment and must be protected from sudden shocks, dirt, magnetic fields, and other environmental factors. Computers, hard drives and optical discs should be secured in a way that prevents shifting during transport.
2. If the original containers are available, use them for the packaging. If possible, package the computer in a box with Styrofoam or foam rubber padding to prevent shifting and damage. Thicker plastic bags that are not easily ripped or torn are acceptable for packaging the computers and media.  
NOTE: All evidence to be submitted to the FDLE laboratory system for examination must be properly sealed before it will be accepted.
3. Normally, computer manuals require no special handling. However, if the manuals contain computer media, precautions used for computers also apply. Manuals should be sealed either in boxes, plastic bags, or paper bags.
4. CD, DVD or Blu-Ray discs should be placed in protective sleeves to prevent damage to the reflective film upon which the data resides.
5. Evidence having the possibility of receiving or transmitting data must be placed in protective packaging such as a clean metal paint can or wrapped in multiple layers of aluminum foil.
6. All cables for cell phones, cameras, laptops and other devices should be submitted with the evidence.

## **c. Cell Phones**

1. Cell phones require special submission instructions dependent on the brand of the device.
2. Most Android based phones should be placed in Airplane Mode and/or shut down to ensure they are not accessible to the cellular network.
3. Locked Apple devices require the device stay powered on;
  - Keep the device powered ON (if on already)
  - Charge prior to submission
  - Place device in AIRPLANE MODE immediately (or remove SIM) and/or place the device in signal blocking materials such as Faraday bags or multiple layers of aluminum foil. Devices cannot be allowed to connect to a network.
  - Input Evidence Description as Apple iPhone or iOS device
  - Mark Evidence Package as Apple iPhone or iOS device- RUSH

### **Guidance Information:**

- It is important that the device **not** be turned off, restarted, or the battery allowed to run out.



- If possible, you should still obtain the device passcode. Passcode recovery is not available for all models of Apple devices.
- If the device is off when collected, do **not** turn it on.
- Devices that have been powered off or have a dead battery may be submitted to the laboratory; however the lock bypass may not be effective.
- Submit the device directly to either the Tallahassee or Tampa Bay regional laboratories.

### **XIII Video Enhancement**

Video surveillance systems are commonplace. The videotape recording may be a valuable piece of evidence that can provide an eyewitness account during the commission of a crime. Not only may the actual crime scene be under surveillance but also adjacent areas may have had systems that provide overlapping fields of coverage. The following steps are recommended for the preservation and collection of images from video surveillance systems.

#### **Collection and Submission of Evidence**

1. Determine all the locations of video surveillance systems in the crime scene and in adjacent areas.
  - A neighborhood canvass may develop additional systems that are recording during the commission of the crime.
  - These additional systems may have recorded the victim's or subject's travel either to or from the actual crime scene.
2. Treat the videotapes, CDs, and surveillance systems as evidence and maintain the chain of custody on the videotapes.
3. Determine if search warrants are needed for the seizure of the videotapes, CDs, and/or surveillance systems.
4. Include camera locations and the fields of view in the crime scene sketch.
5. Take height measurements of reference objects within the camera's field of view.
6. If the surveillance system uses analog tape, do the following:
  - a. Stop the tape recorder but do not eject the cassette.
  - b. Note the settings of the recorder's time display.
  - c. Note the time on your watch or get an exact time from dispatch.
  - d. Note time discrepancies to other time keeping objects within the crime scene, i.e., cash registers, alarm systems, etc.
  - e. Note the value of the counter display on the recorder.
  - f. Rewind the tape.
  - g. Eject the tape and break the write protect tab.
  - h. Note the make and model of the recording device and the time-lapse mode setting.
  - i. Take the tape to another setting and make a copy of it.

- Do not use a home recorder for playing the tape as many video store rental tapes have excessive dirt and this will contaminate the video-recording head resulting in poor quality copies.
  - Use the copy for viewing as pausing or slow motion playing will degrade the tape.
  - j. Time-lapse tapes are not viewable on standard videotape machines.
    - It may be necessary to make a copy by connecting to the original recording equipment.
  - k. Maintain the copy and submit the original tape and include a narrative report including analysis request to any FDLE laboratory for analysis.
7. If the surveillance system uses a digital media such as a Digital Video Recorder (DVR), contact the Tallahassee Crime Laboratory to determine what media or devices are needed in order to capture and process the video data segment. Certain DVRs are proprietary in nature and require special handling.

## XIV. Firearms

Many crimes of violence involve the use of firearms. The laboratory can perform the following:

- examination of firearms for function and safety, including test firing in order to obtain test bullets, cartridge cases or shotshells
- comparison of evidence bullets, cartridge cases and shotshells to determine if they were or were not fired from/in the same unknown firearm or if they were or were not fired from/in a submitted suspect firearm
- examination of fired bullets and/or cartridge cases to determine the possible make and type of firearm involved
- imaging and comparing fired cartridge cases, shotshells, and tests from firearms to similar items recovered in unsolved crimes using the National Integrated Ballistics Information Network (NIBIN) system
- examination of exhibits for the presence of gunpowder patterns and shot (pellet) spread to determine muzzle to entry distance
- restoration of obliterated serial numbers

### a) Case/Evidence Acceptance Policy

A case scenario **must** be provided with any evidence submitted under a “firearms/weapons offense” or “miscellaneous” offense in order to determine eligibility for entry into NIBIN. Exceptions to this Case Acceptance Policy must be granted by the regional Chief of Forensic Services or designee.

Firearms	<ul style="list-style-type: none"><li>▪ All firearms associated with violent crimes should be submitted:<ul style="list-style-type: none"><li>- Homicide &amp; Attempted Homicide</li><li>- Robbery</li><li>- Assault/Sexual Assault with a Firearm</li><li>- Battery/Sexual Battery with a Firearm</li><li>- Kidnapping</li><li>- Home Invasion</li></ul></li><li>▪ Firearms associated with non-violent crimes may be submitted if they meet NIBIN criteria:<ul style="list-style-type: none"><li>- Carrying Concealed Weapon</li><li>- Drug Offenses</li><li>- Search Warrants</li><li>- Illegal possession</li></ul></li><li>▪ Any recovered stolen firearm that meets NIBIN criteria may be submitted for entry into NIBIN.</li><li>▪ Firearms seized or collected solely due to gun buyback programs,</li></ul>
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	<p>domestic disturbances, for safekeeping, or civil court orders such as injunctions, risk protection orders, and Baker Acts will not be accepted.</p> <ul style="list-style-type: none"> <li>▪ Black powder firearms, replica firearms, BB guns, and pellet guns will not routinely be accepted.</li> </ul>
Ammunition and Components	<ul style="list-style-type: none"> <li>▪ Any fired component directly related to a crime may be submitted.</li> <li>▪ Found components with active investigations involving potential subjects/victims or property damage may be submitted.</li> <li>▪ Acceptable fired components are: <ul style="list-style-type: none"> <li>- Fired Bullets</li> <li>- Fired Cartridge Cases</li> <li>- Fired Shotshells</li> <li>- Shotshell Pellets and Wads</li> </ul> </li> <li>▪ Live ammunition may be submitted.</li> <li>▪ Fired cartridge cases removed from the cylinder of a revolver or chamber of any firearm will not routinely be compared to the firearm.</li> </ul>
Clothing of Shooting Victim	<ul style="list-style-type: none"> <li>▪ The clothing of a shooting victim should only be submitted when the muzzle-to-target distance will potentially provide significant information to the case.</li> <li>▪ The suspect firearm and ammunition should be submitted along with the victim's clothing for distance determination.</li> <li>▪ The clothing of subjects will not be accepted.</li> </ul>
Tools/Toolmarks	<ul style="list-style-type: none"> <li>▪ FDLE does not perform Toolmark analysis. Evidence should be submitted to the FBI laboratory for this type of testing.</li> </ul>

## b) Collection and Submission of Evidence

Firearms	
General Guidelines	<ul style="list-style-type: none"> <li>▪ Record the condition of the firearm <b>before</b> you handle it, i.e., position of hammer, safety, slide, cylinder, jammed, etc.</li> <li>▪ The primary concerns when handling and packaging firearms are safety and the preservation of evidence including blood, trace materials, and latent prints that may be present. <ol style="list-style-type: none"> <li>a.Never place any object in the barrel (plastic tie straps used to show that the firearm is unloaded are the exception).</li> <li>b.If DNA analysis is being requested, avoid contamination by wearing a facial mask and gloves while handling the item.</li> <li>c.Any evidence with possible blood or body fluids should be <b>air-dried</b> and the package labeled with a biohazard label.</li> </ol> </li> <li>▪ Do <b>not</b> clean, dry fire, test fire, take apart, or work the action (except</li> </ul>

	<p>to unload).</p> <ul style="list-style-type: none"> <li>▪ Unload carefully.</li> <li>d.If a firearm cannot be unloaded or there are special circumstances, call the laboratory and have a firearm examiner instruct you on how to proceed.</li> <li>e.Call the evidence section prior to your arrival if you must bring a loaded gun into the laboratory.</li> <li>f. Boldly mark the package with: WARNING: LOADED GUN</li> <li>▪ Do NOT mark the firearm.</li> <li>▪ Record the caliber, make, and the serial number.</li> <li>g.Do not attempt to restore the serial number of a firearm prior to submission to the laboratory.</li> <li>▪ Any unfired cartridges/shotshells that have been removed and packaged may then be packaged with the firearm.</li> <li>▪ All firearms must be securely attached to the container (box).</li> <li>▪ When submitting to the laboratory, provide the following: <ul style="list-style-type: none"> <li>h.a summary of the case</li> <li>i. where or from whom the exhibits were recovered</li> <li>j. if an accidental discharge is suspected, a detailed statement as to what the subject was doing with the gun when it discharged</li> </ul> </li> </ul>
Revolver	<ul style="list-style-type: none"> <li>▪ Before opening the cylinder, mark each side of the cylinder at the top strap with a Sharpie pen, being careful not to destroy latent prints or trace materials.</li> <li>▪ Remove each cartridge/cartridge case and place them in an envelope.</li> </ul>
Pistols or Rifles with Detachable Magazines	<ul style="list-style-type: none"> <li>▪ Remove the magazine and leave the cartridges in it.</li> <li>▪ Place in envelope or other container.</li> <li>▪ Remove the cartridge/cartridge case from the chamber and put it in an envelope or other container and mark the container.</li> <li>▪ ALWAYS submit the magazine and the cartridges/cartridge cases that have been removed from the firearm's chamber and/or magazine.</li> </ul>
Derringer	<ul style="list-style-type: none"> <li>▪ Note from which barrel each cartridge/cartridge case came.</li> <li>▪ Remove each cartridge/cartridge case and place in separate appropriately marked container (such as a small manila envelope).</li> </ul>
Rifles and Shotguns with Fixed Magazines	<ul style="list-style-type: none"> <li>▪ Do <b>not</b> run the cartridge/shotshells through the action if you can avoid it.</li> <li>▪ Unload the same way it is loaded.</li> <li>▪ Remove the cartridges/shotshells and package together.</li> <li>▪ Remove the cartridge/shotshell from the chamber, package separately, and mark package.</li> </ul>

Firearm Found in Water	<ul style="list-style-type: none"> <li>▪ Freshwater: immediately immerse in a leakproof container containing the same water in which the firearm was found</li> <li>▪ Saltwater: immediately immerse in freshwater (preferred), the same water in which found, oil, or other water displacing lubricant.</li> <li>▪ Submit to the laboratory as soon as possible to avoid corrosion.</li> <li>k. Corrosion may occur if a wet firearm remains exposed to air for even a short period of time.</li> </ul>
<b>Ammunition and Components</b>	
Fired Bullets, Fragments, Pellets, and Wadding	<ul style="list-style-type: none"> <li>▪ Embedded in a body: <ul style="list-style-type: none"> <li>l. The pathologist should not use forceps or other sharp instruments to remove bullets as they may damage the evidence.</li> <li>m. Body fluids are corrosive so the evidence should be gently rinsed under running water to remove blood and tissue, and then air dried before packaging.</li> </ul> </li> <li>▪ Do not clean bullets recovered from crime scenes.</li> <li>▪ If projectile embedded in other material (such as wood), exercise extreme care when removing. <ul style="list-style-type: none"> <li>n. If it cannot be removed without damaging it, then carefully cut out the whole area around it and submit to the laboratory with the projectile in place.</li> </ul> </li> <li>▪ Use a separate rigid container for each bullet. <ul style="list-style-type: none"> <li>o. Do not put bullets in envelopes.</li> <li>p. Wrap the bullets in gauze or cloth to prevent movement.</li> </ul> </li> <li>▪ Pellets from the same area may be packaged in the same container.</li> <li>▪ Package all other items separately in an appropriately-sized, rigid container and label accordingly.</li> <li>▪ Recover and submit as many bullets, fragments, pellets, and pieces of wadding as are needed for examination.</li> <li>▪ Do not clean or change the condition of items recovered from the scene.</li> <li>▪ Investigators should <b>not</b> mark fired bullets, fragments, pellets, and wadding for identification because there is a danger of damaging individual characteristics.</li> <li>▪ Never seal wet/damp exhibits in plastic before they are dry.</li> <li>▪ Do not use glass containers for the packaging of exhibits due to potential injury to personnel from breakage.</li> </ul>
Fired Cartridge Cases and Shotshells	<ul style="list-style-type: none"> <li>▪ Submit as many fired cartridge cases and shotshells found that are needed for examination.</li> <li>▪ Cartridge cases/shotshells left at the scene by the suspect may display individual characteristics that could be matched to a suspect</li> </ul>

	<p>firearm.</p> <ul style="list-style-type: none"> <li>▪ Do <b>NOT</b> mark the exhibits before submission to the lab.</li> <li>▪ Place each exhibit in a suitable, appropriately marked container. <ul style="list-style-type: none"> <li>q. Place each in a separate container if the location is significant.</li> <li>r. Exhibits can be packaged in the same container if the specific location of each is not required.</li> </ul> </li> <li>▪ All exhibits may be placed inside a single outer package for ease of submission.</li> </ul>
Cartridges or Shotshells	<ul style="list-style-type: none"> <li>▪ Collect any cartridges/shotshells of the same brand and type so that the laboratory can use them for testing and distance determination.</li> <li>▪ Do <b>not</b> mark the cartridges or shotshells.</li> <li>▪ Seal in appropriate containers and mark accordingly.</li> </ul>
<b>Clothing of Victim</b>	
Purpose of Collection	<p>When fired, a mixture of burned and unburned gunpowder and vaporized primer material is blown out the firearm's muzzle along with the bullet or shot pellets and wad(s). This residue may indicate how far away the muzzle of a firearm was from the entry site at the moment of discharge.</p>
Collection Guidelines	<ul style="list-style-type: none"> <li>▪ <b>Note the sequence and condition of the clothing</b>, i.e., t-shirt under flannel shirt, shirt unbuttoned, etc.</li> <li>▪ Collect all clothing containing suspected bullet holes.</li> <li>▪ Handle carefully so as not to lose any residue.</li> <li>▪ Completely air dry clothing on a clean piece of paper.</li> <li>▪ When dry, place another piece of paper on top and roll or fold, and package in a <b>paper bag</b> (never in plastic).</li> <li>s. Seal and mark appropriately.</li> <li>t. If clothing possesses blood stains, label with a biohazard symbol</li> <li>▪ Package each item of clothing separately to avoid cross-contamination.</li> <li>▪ Contact the firearm supervisor if submitting more than the outermost layer of clothing.</li> <li>▪ Provide information as to the number and location of bullet holes in the body.</li> <li>▪ If possible, collect and submit ammunition of the same type used in the crime (e.g. ammunition from the firearm's magazine, unused ammunition from a box at the scene, etc.)</li> </ul>

### c) National Integrated Ballistic Information Network (NIBIN)

NIBIN is a database-driven imaging system designed for imaging the markings made by the firearm on test fires or on fired cartridge cases found at crime scenes. By comparing images in NIBIN, a **potential association** between the firearm and an unsolved shooting event and/or between more than one shooting event may be established.

Notifications of potential associations developed with NIBIN will be communicated to the involved agencies as well as to the Federal Bureau of Alcohol, Tobacco and Firearms (ATF) in accordance with the NIBIN Memorandum of Understanding.

Potential associations will not be microscopically confirmed unless required for legal requirements such as: court testimony, search warrants, arrest warrants or approved for confirmation by the Firearms Section Supervisor.

#### 1. Capabilities of the NIBIN system include:

- digital image capturing of fired cartridge cases and shotshells that meet imaging criteria through a software program known as “Brasstrax”
- interactive side-by-side comparison
- images are searched against the State of Florida; however, upon request of and approval by the firearm supervisor, additional nationwide searches can be done with investigative information provided about other geographic locations

#### 2. NIBIN Criteria:

The laboratory will evaluate all submitted firearms, tests fires, evidence cartridge cases, and shotshells for suitability for entry into NIBIN.

- Cartridge Cases and Shotshells Found at Crime Scenes:
  - Any evidence cartridge case or shotshell meets NIBIN criteria.
- Firearms:
  - The following firearms *are* suitable for entry into NIBIN:
    - Semiautomatic firearms
    - Full automatic firearms
    - Repeating firearms:
      - Bolt-action
      - Pump-action (aka slide-action)
      - Lever-action
  - The following firearms *are not* suitable for entry into NIBIN:
    - Revolvers
    - Any Single-Shot Firearm



- Break Open Shotguns, Rifles, or Pistols
- Derringers
- Black Powder Firearms
- “BB” or Pellet Guns
- Law Enforcement Officer’s firearm unless specifically requested for an investigation

#### **d) Serial Number Restoration**

The obliteration of serial numbers and manufacturer’s marks is often done to prevent tracing ownership. The laboratory uses mechanical and chemical processes that may restore the original marking in whole or in part.

##### **Collection and Submission:**

- Package the evidence in a manner that will protect the area where the serial number has been obliterated.
- Contact the laboratory prior to delivering large items.
- If serial number restoration will be requested, **no** attempt should be made to restore the serial number prior to submitting it to the laboratory.
- Note in the case comments if a serial number has been previously restored.

## **XV. Impression Evidence (Footwear and Tire)**

Footwear and tire impressions are one of the most commonly overlooked types of evidence. Yet, impression evidence can be found at most crime scenes. Almost all footwear and tire impressions, including partial impressions, have value for forensic examinations and the potential to link suspect shoes or tires to a crime scene.

When impression evidence is analyzed it may show:

- a design, which may be researched to determine brand names and manufacturers of footwear or tires that could have made the impression
- sufficient detail to identify or eliminate the footwear or tire that did or did not make the impression
- Limited detail, but enough to determine that the footwear or tire could have made the impression

There are two types of impressions that can occur:

- Two-Dimensional Impressions: impressions that have length and width and may be found on surfaces such as wood, tile, skin, clothing, doors, glass, paper, counter tops, window sills, walls, etc. They may be left by a variety of contaminants such as water, blood, dust, paint, grease, etc.
- Three-Dimensional Impressions: impressions that have length, width, and depth and may be found on surfaces such as sand, soil, mud, etc. They are left when the footwear or tire has been impressed into a surface.

### **a. Photography of Impressions**

- “Examination-Quality” photographs (as opposed to general crime scene photographs) are needed for forensic comparisons of impression evidence due to their level of detail which can also be enlarged to natural size for comparison with submitted known footwear and tires.
- **All** impression evidence should be properly photographed and labeled.
- **All** photographs of the impressions must be submitted for examination, including negatives and/or digital image media.
- The following equipment is essential for proper photographic documentation of impression evidence:
  - Camera with interchangeable lens capability (35mm or digital with minimum 5MP)
  - 50mm or normal perspective lens
  - Detachable electronic flash and flash extension cord
  - Cable release or self-timer
  - Tripod
  - 35mm film or memory card
  - Scale (measurement device)
  - Bubble level
  - Flashlight and a cloth or drape to cast shadows

- In bright daylight situations, it may be necessary to block out as much sunlight as possible. Sunlight or direct overhead light can often wash out detail created by using side lighting. To avoid wash out, use a dark cloth to create shadow over the impression and then follow the photography procedure below.
- To achieve examination quality photographs that can be used for laboratory analysis follow these steps:
  1. Place a proper scale next to and at the same depth as the impressions, being careful not to cover or damage any part of the impression.  
**A proper scale** is: thin, flat and ridged; at least 6” to 12” long with a non-reflective surface; black with white numerals or white with black numerals.  
 Do **not** use cloth measuring tapes, metal retractable tapes, coins, pens, etc. for scale.
  2. Identify the impression being photographed with a designator placed on or near the scale. Example: marker #, Imp. #1, #2 (or A, B), etc.
  3. Place the camera with a 50mm or normal perspective lens on a tripod.
  4. Position the camera on the tripod directly over the impression and make sure the “film” plane (back of camera) is parallel to the impression.
  5. Adjust the height of the tripod so that the impression fills the frame of the camera.
  6. Manually focus on the impression (not the scale) and set the camera for a greater depth of field (i.e., f/stop of f/16 or f/22). Never use auto-focus.
  7. Attach the flash extension cord to the electronic flash and camera.
  8. Use the flash test button or flashlight to determine the proper height and angle of the flash position (generally 4’ – 5’ to the side of the impression).
  9. Use a shutter release cable or self-timer to eliminate any camera movement.
  10. Take several photographs of the impression with the flash at different positions around the impression.

## **b. Collection and Submission of Evidence**

After the impressions have been photographed, it is highly recommended that a secondary recovery method is used to collect **all** impression evidence (even partial impressions). The types of secondary methods for each type of impression are listed below.

- Two-Dimensional Impressions:
  - Adhesive and Tape Lifters: for lifting impressions on non-porous surfaces that have been enhanced with fingerprint powder.
  - Black/White Gelatin Lifters: for lifting impressions on both porous and non-porous surfaces that may or may not be wet.
  - Mikrosil/Forensic-sil: for lifting powdered impressions, particularly on textured or uneven surfaces.
  - Electrostatic Lift (DELK): for lifting dry dust or dry residue footwear impressions from clean porous or non-porous surfaces

- The proper storage of electrostatic lift film is crucial to the preservation of any impressions present. A small lift should be placed in a clean manila folder or a **clean** shallow box with the edges taped down to prevent movement. A long/large lift may be gently rolled to protect the impression. **Do not fold the film**, and do not use pizza boxes or other previously used boxes.
- Dental Stone: for lifting powdered or chemically enhanced impressions on immovable objects (i.e., enhanced bloody impression on concrete).  
NOTE: Place tape around the impression before pouring to help the dental stone release from the concrete.
- Three-Dimensional Impressions:
  - Dental Stone: for casting impressions in soil, sand, mud, and snow, or soil impressions tracked across a driveway or sidewalk.  
NOTE: Place tape around the impression before pouring to help the dental stone release from the concrete.
- Dental Stone Directions:
 

Yields: 1 Footwear Cast (Double the Amount for 18" Tire Impression)

  1. Take one 8x12 inch plastic zip-lock bag.
  2. Add 2lbs of dental stone and 9-12oz water.
  3. Close bag and massage vigorously for 3-5min including any mixture caught in the corner of the bag.
  4. Mixture should resemble pancake batter when ready.
  5. Open bag or snip one corner and pour mixture **beside** the impression, allowing it to flow into the impression. **DO NOT POUR DIRECTLY ON THE IMPRESSION.**
  6. You may skim the surface of the mixture with your finger to gently smooth or direct the flow into all areas for complete coverage of the impression, being careful not to let your finger sink below the surface.
  7. Leave undisturbed for at least 20 to 30 minutes, or longer if the outside air is cold. When set the cast loses gloss and feels cold to the touch.
  8. Allow casts to air dry for 48 hours, if possible, before packaging. Do **not** attempt to clean or remove any soil, leaves, rocks, or other debris adhering to the cast.
  9. Package the cast separately from other evidence and to prevent breakage (with Styrofoam peanuts, bubble wrap, crumpled newspaper, etc.).
  10. Do **not** package casts in plastic.
  11. Identify the lift or cast impression with the same designator used for the photograph of that impression. Example: marker #, Imp. #1, #2 (or A, B), etc.

### c. Collection of Standards

For a thorough examination, it is recommended that the actual footwear and tires be submitted for comparison. When possible, the vehicle should be transported to the laboratory on a flatbed tow truck. If towing the vehicle is not possible, mark each tire

with the position they occupied on the vehicle (LF, LR, RF, RR) and submit the tires on their rims.

**Note: DO NOT PACKAGE FOOTWEAR IN PLASTIC. DO NOT DRIVE THE VEHICLE OR ALLOW THE TIRES TO ACQUIRE ADDITIONAL WEAR.**

In the event that the collection of the footwear or tires is not possible, photograph properly and document all information available (brand, color, make, model, size, DOT numbers, etc.). This information can be located on the inside of the footwear or the sidewall of the tire. Then make test standards.

## XVI. Latent Prints (Friction Ridge)

Latent prints are among the most valuable and fragile types of physical evidence. Consider all objects at the scene of the crime as possible sources of latent prints that may lead to identification of the subject(s). By processing and/or examining the evidence submitted, the laboratory may be able to:

- Evaluate for the presence of latent prints
- Determine if the latent prints are of value for comparison
- Compare and identify latent prints with the known standards of individuals
- Establish the identity of unknown, deceased persons
- Identify finger and/or palm prints via Biometric Identification System (BIS) and the Federal Bureau of Investigation's (FBI) Next Generation Identification (NGI)

### a. Case/Evidence Acceptance Policy

A case scenario should be provided with all submitted evidence, in order to establish the value of each item as to its likelihood to provide probative results or an investigative lead.

NOTE: The type and number of latent print items accepted per submission is based on case type (please refer to table below). An item is expected to be comprised of one piece of evidence (for example, one latent lift, one digital image, one weapon, or one piece of paper). If items are received packaged together, the number of items in the package will be considered to be the number of items submitted (for example, soda can, cigarette pack, and candy wrapper packaged together will be considered three items). The number of latent lifts contained in a package must be listed on the Prelog form. For all case types, known standards will **not** count against the number of items that may be submitted. For non-violent crimes, the first submission is limited to 10 items. Subsequent submissions are allowed, with 10 items each, if nothing probative is found on the previous submission. For violent crimes, there is no limit on the number of items submitted.

General Guidelines	<ul style="list-style-type: none"><li>▪ An item previously processed by a contributing agency will not be accepted unless approved by the latent print supervisor.</li><li>▪ An item will <b>not</b> be examined by the latent print section if it has been previously examined by another discipline, unless requested at time of submission.</li><li>▪ Items of evidence removed directly from the subject will not be accepted unless approved by the latent print supervisor.</li><li>▪ Comparisons will only be conducted with subjects pertinent to the case.</li></ul>
Burglary/Theft	<ul style="list-style-type: none"><li>▪ Only evidence from the point of entry/exit or that originated from inside the business, dwelling, vehicle, or vessel will be</li></ul>

	<p>accepted unless requested by the prosecuting attorney.</p> <ul style="list-style-type: none"> <li>▪ .</li> </ul>
Stolen Vehicles	<ul style="list-style-type: none"> <li>▪ Only evidence from the point of entry or from inside the vehicle will be accepted unless requested by the prosecuting attorney.</li> </ul>
Digital Images	<ul style="list-style-type: none"> <li>▪ Only 10 digital images per submission will be accepted for all cases (excluding violent crimes).</li> <li>▪ Only 1 image per photographed area should be submitted.</li> <li>▪ Additional images from a previously submitted photographed area will be accepted in subsequent submissions if requested by the latent print examiner due to insufficient clarity.</li> </ul>
Prior Approval Needed	<p>Latent print analysis on evidence submitted for the following crimes will not be accepted unless approved by the latent print supervisor:</p> <ul style="list-style-type: none"> <li>▪ Felon in Possession (on person)</li> <li>▪ Found Property</li> <li>▪ Criminal Mischief</li> <li>▪ Suspected Cannabis Exhibits containing less than 20 grams of plant material</li> <li>▪ Drug Paraphernalia (unless only item in case)</li> <li>▪ Misdemeanor Offenses Without a Subject Listed</li> <li>▪ Miscellaneous Offenses Without a Subject Listed</li> </ul>

## b. Collection and Submission of Evidence

- Use gloves to pick up items of evidence being careful not to wipe possible latent prints off the surface.
- Fasten down large articles containing latent prints with string, wire, or tie straps to prevent shifting and contact with other items.
- Air dry any wet or damp object before packaging it in **paper**. If an item is submerged in water, place it in a container with the same water for transport to the laboratory.  
NOTE: Exposure to water or dampness does not necessarily destroy all latent prints.
- All evidence packages that contain a suspected controlled substance must be separated for latent print request prior to submission to the laboratory.
- In instances in which cartridge cases are submitted, prior approval of the latent print supervisor is required before the commencement of the examination to establish the probative value of these items.
- Latent lifts should be submitted on proper lift cards. (Place an “X” on latent prints belonging to the person collecting the lift.) Photocopies of latent lifts will **not** be accepted.

- Identify all evidence, whether original articles, latent lifts, photographs, negatives, or digital media with a tag or mark and place the tag or mark so it does not interfere with the latent print examination.
- Package developed latent lifts in **envelopes**, mark with the number of lifts and general description of location, and then seal.
- Package papers and documents containing latent prints in manila envelopes or cardboard boxes, seal, and submit.
- Do not wrap nonporous items in cotton or cloth as they will damage and destroy the latent prints.
- Do not cover exhibits to be examined for latent prints with evidence tape.
- Digital images of latent prints submitted on digital media should be photographed with a scale for BIS entry. Digital images of latent lift cards should have information pertaining to the area where the print was lifted and initials of the individual who made the lift. If the digital image resolution does not conform to the standards required for digital image processing within the FDLE laboratory system, the digital media will be returned to the contributing agency unworked.
- Mark the packaging with the biohazard symbol and label if it contains hands, skin, blood stained evidence or other biohazard material.
- Evidence submitted for latent print processing may not be accepted if collected latent lift cards are not submitted along with the other evidence in the case. Contributing agencies with internal latent print capabilities should not retain, evaluate, or compare latent lift cards on those cases submitted to the laboratory for processing.

### c. Submission of Standards for Comparison Purposes

- All subject standards must be submitted on 10-print cards and/or palm print cards. Each page submitted must list the subject's **first and last** name.
  - Treat all inked standards as evidence, therefore, package, label, and seal appropriately.
  - Subject standards will not be accepted via fax due to poor quality.
  - Complete and legible inked print standards of all ridges on the fingers and palms of the subject are required.
  - One-to-one copies may be substituted if original subject standards cannot be submitted.
- **Submit photocopies of subject standards only as a last resort.**
- FDLE crime laboratory analysts are **not** permitted to record subject standards or conduct latent print comparisons at the courthouse.
  - The individual that takes the standards must be able to testify to the identity of the subject.
- If original subject standards cannot be obtained, the FDLE laboratory may obtain standards from the BIS if the full name, SID number and/or OBTS number of the subject are provided. It is preferred the date of birth be included as well.



- Major case print standards taken for latent print comparisons, in addition to a regular set of rolled fingerprint and both palm print standards, include the fingertips, side of the fingers, the lower joints of the fingers and blade side of both palms (refer to Figure 6)
- Latent print evaluations and comparisons will be complete when an identification is made on all pertinent subject standards submitted for latent print comparison.
  - Ceased latent print processing, evaluation, and comparison cases will be photographically documented to prevent the loss of potentially valuable evidence. A statement will be placed in the report that other latent prints exist but the evaluations and comparisons were ceased.
  - Evaluation and comparison of latent prints will be re-initiated upon request of the agency and with latent print supervisor approval or when additional subject standards are submitted, and will cease once an identification is made. If no identification is made, the case will be compared out in its entirety.
    - Resubmission of the original CD/DVD of latent print digital images for comparison if it was returned to the submitting agency is required when there is a subsequent submission with standards.
- FDLE Policy and Latent Print Standard Operating Procedures dictate that all identifications are to be verified by a second proficient FDLE crime laboratory analyst and under proper conditions.

#### **d. Identifying the Deceased**

In order to identify a deceased individual, take inked fingerprint and palm print standards for comparison purposes. For potential investigative purposes, take major case print standards and if necessary the footprint standards of deceased subjects. Do not preserve fingers of the deceased in a strong formaldehyde solution.

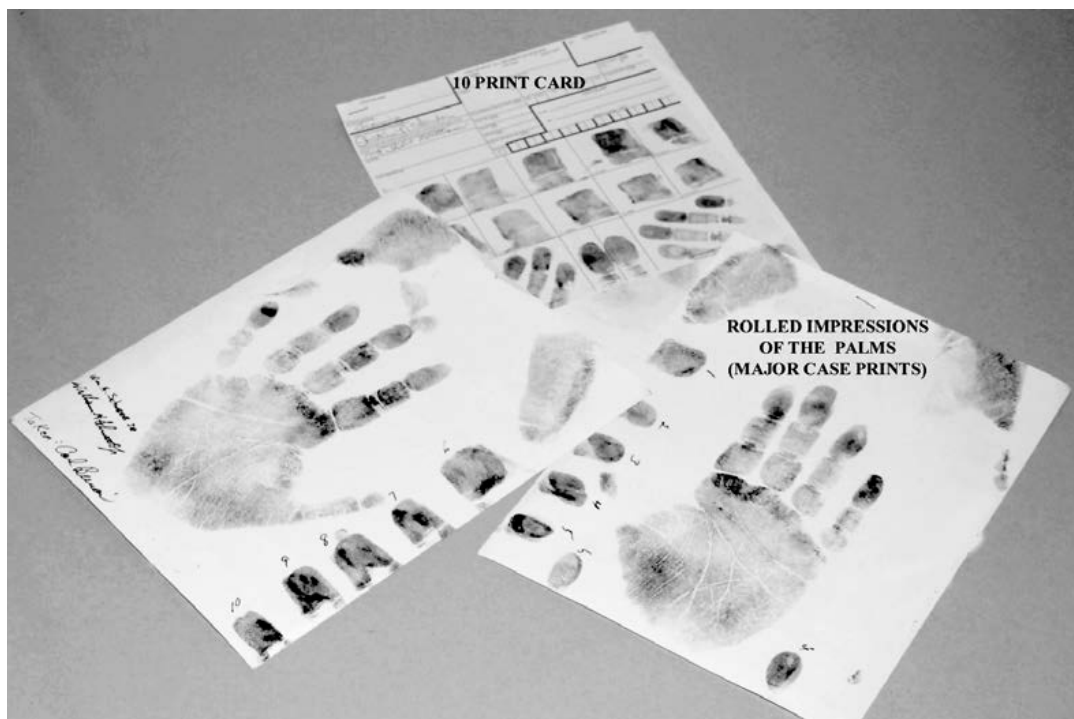


Figure 6 – Examples of Rolled Inked Print Standards (Fingerprints, Finger Joints, and Palm Prints)

## **XVII. Biometric Identification System Database**

The Biometric Identification System (BIS) and the Federal Bureau of Investigation's (FBI) Next Generation Identification (NGI) are computerized systems capable of reading, classifying, matching, and storing finger and palm prints for every criminal justice agency in the state of Florida (BIS) and the United States (NGI). BIS-quality latent finger and palm prints are entered into the BIS and NGI for a search for possible matches against the state and the FBI-maintained databases for finger and palm print records. By examining the evidence submitted, the laboratory may be able to:

- determine the presence of BIS-quality finger and palm prints on evidence (photographs, latent lifts, negatives and/or digital image media) for possible BIS and NGI entry or quality palm prints for possible BIS entry
- establish the identity of unknown deceased persons

### **a. Collection and Submission of Evidence**

- All BIS cases must be submitted under Latent Prints for BIS (previously AFIS) analysis on the Prelog form.
- Latent prints searched in BIS by the contributor prior to submission to the laboratory will not be accepted for additional search.
- Case information should include the number of latent lifts, photographs, negatives, digital image media, fingerprint and/or palm print standards submitted, the case summary, and information regarding the location of the latent prints lifted and/or photographed. Use the BIS analysis when submitting fingerprint and/or palm print standards of unknown deceased persons and when there is a question of the true identity of a subject.
- Evidence requiring physical processing must be submitted for latent print identification & comparison analysis (Not BIS) on the Prelog form. This includes:
  - any item(s) requiring physical processing for latent prints
  - fingerprint and/or palm print standards of known subject(s), including elimination or deceased prints
  - photographed latent prints without a scale present

### **b. Unidentified Latent Prints**

- Unidentified latent finger and palm prints of sufficient quality will be evaluated for entry and storage into the BIS and NGI Unsolved Latent File and Unsolved Latent Palm (ULF/ULP).
- Unidentified latent finger and palm prints entered into the BIS and NGI ULF/ULP will be searched against new finger and palm print records being added to the FDLE and FBI finger and palm print databases.

- If an identification is effected as a result of one of the searches, the crime laboratory will notify the contributing agency in an official laboratory notification. In the event the contributing agency should identify any latent fingerprints or palm prints that have been submitted to the laboratory for a BIS and/or NGI search, or if the case that was submitted is cleared, the agency should notify the laboratory so these latent fingerprints or palm prints can be purged from the unidentified latent fingerprint and/or palm print databases.

## XVIII. Forensic Document Examination

General Guidelines	<ul style="list-style-type: none"> <li>▪ Preserve documentary evidence in the condition in which it was found. <ul style="list-style-type: none"> <li>- Evidence must <b>not</b> be folded, torn, marked, soiled, stamped, written on, hole-punched, or handled unnecessarily.</li> <li>- If you need to mark on the documents, do so unobtrusively by writing the information in pencil.</li> </ul> </li> <li>▪ Whenever possible, submit the original evidence to the laboratory. Lack of detail in photocopies makes examination difficult.</li> <li>▪ Protect the evidence from inadvertent indented writing: <ul style="list-style-type: none"> <li>- Whenever possible, mark the evidence container with identifying information <b>prior</b> to placing the evidence inside.</li> <li>- Do <b>not</b> write on sealed evidence or place it beneath something on which you are writing.</li> </ul> </li> <li>▪ Do <b>not</b> process the documents for fingerprints prior to a document examination <ul style="list-style-type: none"> <li>- Submit evidence for examination before latent print processing.</li> <li>- If examination is needed after latent print processing, please submit a photocopy or scan of the document in its original condition before it was processed.</li> </ul> </li> <li>▪ Do <b>not</b> store or ship photographs in plastic envelopes.</li> </ul>
Handwriting and Hand Printing	<p>What Can <b>Not</b> Be Determined:</p> <ul style="list-style-type: none"> <li>▪ Age</li> <li>▪ Gender</li> <li>▪ Personality</li> <li>▪ Intent</li> </ul> <p>What Can <b>Sometimes</b> Be Determined:</p> <ul style="list-style-type: none"> <li>▪ Origin</li> <li>▪ Authenticity</li> </ul> <p>Reasons for Inconclusive Results:</p> <ul style="list-style-type: none"> <li>▪ limited questioned and/or known writing</li> <li>▪ lack of contemporaneous writing or lapse of time between execution of questioned and known writing</li> <li>▪ distortion or disguise in the questioned and/or known writing</li> <li>▪ lack of sufficient identifying characteristics</li> <li>▪ submission of photocopied evidence instead of original evidence</li> <li>▪ submission of chemically processed evidence</li> </ul>

	<p>Procedures for Obtaining Known Writing Exemplars:</p> <ol style="list-style-type: none"> <li>1. The text, size of paper, space available for writing, writing instrument, and writing style (handwriting or hand printing) must be as close to the original writing as possible.</li> <li>2. Give verbal or typewritten instructions concerning the text to be written. Do <b>not</b> give instructions in spelling, punctuation, or arrangement of writing.</li> <li>3. All exemplars must be on separate pieces of paper, and the writer and witness must initial and date each page of writing.</li> <li>4. Do not allow the writer to see the previous exemplars or the questioned writing. Remove exemplars from the writer's sight as soon as completed.</li> <li>5. Obtain exemplars from dictation until normal writing has been produced. Normal handwriting is assessed by determining whether the writing is too quickly or slowly executed and whether the handwriting is consistent.</li> <li>6. Obtain exemplars from the right and left hand, as well as, in upper- and lowercase letters.</li> <li>7. Obtain exemplars written rapidly, slowly, and at varied slants.</li> <li>8. Obtain a sufficient quantity of exemplars to account for natural variation in the writing.</li> <li>9. Obtain undictated writing such as business records, personal correspondence, and canceled checks.</li> </ol>
Non-Genuine Signatures	<p>Types of Non-Genuine Signatures:</p> <ul style="list-style-type: none"> <li>▪ <u>Traced Signatures</u>: prepared by using a genuine signature as a template or pattern</li> <li>▪ <u>Simulated Signatures</u>: prepared by copying or drawing a genuine signature</li> <li>▪ <u>Freehand Signatures</u>: written in the forger's normal handwriting with no attempt to copy another's writing style</li> </ul>
Altered or Obliterated Writing	The presence of altered or obliterated writing can sometimes be determined and the writing may be deciphered.
Typewriting	<p>Questioned typewriting can occasionally be identified with the typewriter that produced it. The identification can sometimes be based on individual characteristics that develop during the manufacturing process and through use and abuse of the typewriter. Comparison of questioned typewriting with reference standards can sometimes determine a possible make and model of the typewriter and/or the typewriter elements.</p> <p>Procedures for Obtaining Known Typewriting Exemplars:</p>

	<ol style="list-style-type: none"> <li>1. If the typewriter has a carbon film ribbon, remove it from the typewriter and submit it to the laboratory. <ul style="list-style-type: none"> <li>- Carbon film ribbons can sometimes be read for content or specific wording, and can sometimes be identified with questioned typewritten impressions.</li> <li>- Also submit the correction tape.</li> <li>- Insert a new ribbon in the typewriter prior to obtaining exemplars.</li> </ul> </li> <li>2. If the typewriter has a fabric ribbon, remove it from the typewriter and put the typewriter in the stencil position. <ul style="list-style-type: none"> <li>- Place a sheet of carbon paper over a sheet of blank paper and insert both into the typewriter.</li> <li>- Allow the typeface to strike the carbon paper.</li> <li>- Submit the fabric ribbon strike and the carbon paper strike exemplars to the laboratory.</li> <li>- Fabric ribbons <b>cannot</b> be read.</li> </ul> </li> <li>3. Obtain 2 full word-for-word texts of the questioned text and type the entire keyboard (all symbols numbers, and upper- and lowercase letters) twice.</li> <li>4. Record the make, model, and serial number of the typewriter on the exemplars. Also record the date the exemplars were obtained and the name of the person who directed the exemplars.</li> <li>5. Obtain the typewriter service and/or repair history.</li> <li>6. It is not always necessary to send the typewriter to the laboratory; however, in some cases the examiner will request the typewriter. <ul style="list-style-type: none"> <li>- It must be packed securely to prevent damage during shipment.</li> <li>- Typewriter elements (e.g., ball, printwheel, or thimble) must also be submitted to the laboratory.</li> </ul> </li> </ol>
Photocopies	<p>Photocopies can sometimes be identified with the machine producing them if the exemplars and questioned copies are relatively contemporaneous. The possible make and model of the photocopy machine used to produce the copies can sometimes be determined by examination and comparison with published industry resources, or if necessary, contacting manufacturers or distributors for further information.</p> <p>Procedures for Obtaining Known Photocopy Exemplars:</p> <ol style="list-style-type: none"> <li>1. Obtain at least 10 exemplars with <b>no</b> document on the glass plate, with the cover <b>down</b>.</li> <li>2. Obtain at least 10 exemplars with <b>no</b> document on the glass</li> </ol>

	<p>plate, with the cover <b>up</b>.</p> <ol style="list-style-type: none"> <li>Obtain at least 10 exemplars with a document on the glass plate, with the cover <b>down</b>.</li> <li>Record on each exemplar the date the exemplars were obtained, the name of the person who directed the exemplars, and the conditions under which the exemplars were made.</li> <li>Record the make, model, and serial number of the photocopy machine, information about the toner supplies and components, whether the paper supply is sheet or roll fed, and options such as color, reduction, enlargement, zoom, mask, trim, or editor board.</li> <li>Do <b>not</b> store or ship photocopies in plastic envelopes.</li> </ol>
Faxed Documents	The type of machine used to fax a document can sometimes be determined by examination of TTI (Transmit Terminal Identifier) on the top of the faxed page. A faxed document can sometimes be identified to the machine that it was faxed from, or the machine that received it.
Counterfeit Documents	A comparison between a suspected counterfeit document and a genuine document can determine authenticity.
Graphic Arts (Printing)	Printed documents can sometimes be associated as originating from a common source by determining the printing process or identifying with known printing paraphernalia such as artwork, negatives, and plates. The document can also be compared with a known office machine.
Paper	<ul style="list-style-type: none"> <li>Torn edges can sometimes be positively matched.</li> <li>The manufacturer can sometimes be determined if a watermark is present.</li> <li>Paper can be examined for indented writing if not chemically processed. <ul style="list-style-type: none"> <li>Do <b>not</b> rub the indentations with a pencil.</li> <li>Do <b>not</b> add extraneous indentations by writing on top of the evidence.</li> <li>Do <b>not</b> request a biology examination on paper items when indented writing may be the more probative evidence as swabbing for DNA is destructive to indented writing.</li> </ul> </li> </ul>
Burned or Charred Paper	<p>Information on burned or charred documents can sometimes be deciphered.</p> <ul style="list-style-type: none"> <li>The document must be minimally handled.</li> <li>The document <b>must</b> be shipped in the container in which it was burned, in polyester film encapsulation, or between layers of cotton in a rigid container.</li> </ul>



Liquid-Soaked Paper	<ul style="list-style-type: none"> <li>▪ Information on liquid-soaked documents can sometimes be deciphered.</li> <li>▪ This type of document must be minimally handled.</li> <li>▪ The document must be air dried before packaging.</li> <li>▪ Depending on the size and shape of the document, either place in a ridged container between layers of cotton or keep flat in a paper envelope.</li> </ul>
Age of a Document	The earliest date a document could have been prepared can sometimes be determined by examining watermarks, indented writing, printing, and typewriting.
Carbon Paper or Carbon Film Ribbon	Examination of used carbon paper or carbon film ribbon can sometimes disclose the content of the text.
Check Writers	A check writer impression can sometimes be identified with the check writer that produced it, and determine the brand of the check writer.
Embossing and Seals	An embossed or seal impression can sometimes be identified with the instrument that produced it.
Rubber Stamps	A rubber stamp impression can sometimes be identified with the rubber stamp that produced it. Submit the rubber stamp to the laboratory <b>uncleaned</b> .

## **XIX. Skeletal Remains**

**FDLE Laboratories do NOT accept or analyze skeletal remains, except as potentially needed for DNA analysis. Contact your district medical examiner's office immediately, if skeletal remains are found.**

### **a. Analysis of Human Remains completed by the Medical Examiner's Office may determine:**

- estimation of race, stature, age, and sex
- possible cause of death through damage to skeleton
- evidence of possible ante mortem trauma or certain diseases through X-ray and microscopic examination
- estimation of time of death through examination of associated items such as coins, clothing shoes, or other materials

### **b. Excavation and Collection of Evidence**

Careful examination and collection of skeletal remains are necessary to achieve accuracy and to facilitate reassembly. Proper packaging, labeling, and transportation of skeletal remains are extremely important. Each FDLE crime scene unit is trained in the detection and proper recovery of surface and buried remains.

1. The medical examiner or designee should see the bones at the site of excavation before they are disturbed.
2. Take good general photographs of the bones and associated evidence prior to collection.
  - Map the position of all bones before recovery.
3. Try to recover all bones present. Inventory the bones while they are being removed from the ground.
  - Some smaller bones are extremely fragile and decay rapidly. Even when present, they may be overlooked because their coloring can be similar to the soil.
4. Do **NOT** excavate the skeleton using heavy machinery or large shovels.
5. Do **NOT** mix bones that can be identified as left and right.
6. Recover all trace evidence found with the body.
7. Packaging should be done in a manner that makes the examination more rapid, and should be done at the scene to avoid loss of small bones and teeth.
  - Use separate containers for each hand and foot, and label right and left.
  - Properly package clothing and other evidence items separately from skeletal remains.
  - Label each package with the biohazard symbol.

## XX. Toxicology

The Toxicology Section analyzes samples of whole blood (also known as legal blood) and serum for the presence of alcohol and analyzes whole blood and urine for other toxic or impairing drugs. Most cases submitted to toxicology result from DUI investigations, sexual assault investigations, and death investigations involving living subjects.

Collect whole blood, serum, and urine samples as soon as possible after the offense. Deliver these samples as soon as possible in person to any FDLE crime laboratory, or via mail or common carrier directly to the Tallahassee or Orlando laboratories. It is **not** necessary to pack specimens in ice to mail. Mail samples using overnight delivery to arrive at the laboratory Monday through Friday, not on the weekend.

**NOTE: Postmortem (i.e. medical examiner) toxicology services are not provided at any FDLE laboratory.**

### a. Case Acceptance Policy

Traffic Investigations (DUI) and Boating Investigations (BUI)	<ul style="list-style-type: none"><li>▪ The best toxicological sample to collect from the subject is whole blood.</li><li>▪ The collection and analysis of samples taken for blood alcohol testing in DUI and BUI cases are regulated by Florida Statute sections 316.1932, 316.1933, 316.1934, and 327.352, 327.353, 327.354, and the Florida Administrative Code Rule 11D-8. FDLE sends statistical summaries of these types of cases to the Department of Motor Vehicles as required.</li><li>▪ Whole blood samples are only analyzed for drugs other than alcohol when specifically requested by the submitting agency.</li><li>▪ Currently, in nonfelony DUI cases blood drug testing is not performed if the blood alcohol level is 0.08g/100mL or more.</li><li>▪ Urine samples submitted to the laboratory in DUI cases are routinely analyzed for drugs controlled under Florida Statute 893.</li></ul>
Sexual Assault Investigations	<ul style="list-style-type: none"><li>▪ Package biological evidence separate from toxicology evidence.</li><li>▪ In cases where drug-facilitated sexual assault (DFSA) is suspected, the best toxicology sample to collect from the victim is urine.<ul style="list-style-type: none"><li>- Routine toxicology analysis of DFSA cases includes testing urine and/or whole blood for a panel of drugs associated with this type of case, including: alcohol (if blood submitted); gamma-hydroxybutyric acid (GHB); controlled drugs (Florida Statute 893); and non-controlled drugs.</li><li>- It is very important that background information is provided in order to assure appropriate toxicology screening tests are completed. The toxicology DFSA work request form can be located on the CJNet.</li></ul></li></ul>

	<ul style="list-style-type: none"> <li>▪ In other sexual assault cases where drug testing is specifically requested by the case investigator, a routine drugs-of-abuse screen will be completed.</li> <li>▪ In relation to “non-reporting” victims as referenced in Florida Statute 960.28, sexual assault victims who choose not to file a police report, but whose evidence is being stored by a law enforcement entity should <b>not</b> have their toxicology kit or other related evidence submitted to an FDLE laboratory unless the person has subsequently filed a police report and signed a consent form authorizing their identity be released to the law enforcement agency. <ul style="list-style-type: none"> <li>- If it is identified that the submitted toxicology kit or other related evidence involves a non-reporting victim, the laboratory will contact the submitting agency to verify that the victim has filed a police report and an investigation has been initiated.</li> <li>- If a police report has not been filed, then the evidence will be returned without examination.</li> </ul> </li> </ul>
Death Investigations (not traffic related)	<ul style="list-style-type: none"> <li>▪ Collect whole blood and urine samples from the living <u>subject(s)</u> as soon as possible after the incident.</li> <li>▪ <b>DO NOT</b> submit samples from deceased persons to FDLE for toxicology testing.</li> <li>▪ Provide the laboratory the case history and specific drug-testing requirements for the investigation.</li> </ul>

## b. Collection and Submission of Evidence

Whole Blood & Serum Evidence	<ul style="list-style-type: none"> <li>▪ Collect blood samples as soon as possible after an incident.</li> <li>▪ Whole blood should be collected <b>up to</b> 24 hours after the incident. After 24 hours, detection of many drugs and alcohol become unlikely.</li> <li>▪ Only authorized individuals as described in Florida Statutes should collect the samples.</li> <li>▪ Blood samples must be collected in appropriate evacuated blood collection tubes, which should contain sodium fluoride and either EDTA or oxalate. <ul style="list-style-type: none"> <li>- The tube label and/or collection kit documentation usually states the contents of the tube.</li> <li>- Whole blood collection tubes with gray stoppers are preferred.</li> <li>- Small samples of blood collection for DNA testing (purple or red stopper tubes) are not adequate for toxicology purposes.</li> </ul> </li> <li>▪ Use only <b>nonalcoholic antiseptics</b> for cleansing the collection site on the person’s arm.</li> </ul>
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	<ul style="list-style-type: none"> <li>▪ <b>Never</b> include blood collection implements in the kit (syringes, needles, lances, swabs, gauze, etc.)</li> <li>▪ Label blood tubes with: individual's <b>first and last</b> name, collection date, collection time, and blood collector's initials.</li> <li>▪ Follow the procedures for packaging and labeling for the submission of liquid blood to an FDLE laboratory.</li> <li>▪ Selection of blood samples to be tested will be based on when and under what conditions the blood was collected. <ul style="list-style-type: none"> <li>- If 2 whole blood collection kits, taken from the same individual, are submitted, the kit with blood drawn closest to the time of the incident will be tested.</li> <li>- If hospital blood (serum) tubes and a whole blood collection kit are submitted and the blood was taken from the same individual, the whole blood collection kit will be tested.</li> <li>- The Chief of Forensics Services may grant an exception to this policy at the request of the prosecuting authority.</li> </ul> </li> </ul> <p>Blood Alcohol Analysis:</p> <ul style="list-style-type: none"> <li>▪ Samples are analyzed for ethyl alcohol content.</li> <li>▪ Blood alcohol testing will not be performed if the sample is collected more than 24 hours after an offense.</li> <li>▪ Collect and submit at least 5 milliliters (1/2 tube) of whole blood for alcohol analysis.</li> <li>▪ Retrograde extrapolation requests require additional information. The retrograde extrapolation request form can be located on the CJNet.</li> </ul> <p>Blood Drug Analysis:</p> <ul style="list-style-type: none"> <li>▪ Collect and submit at least 20 milliliters (2 tubes) of whole blood for blood drug analysis.</li> <li>▪ Drug analysis is not performed on serum samples, which includes most tubes used in a hospital setting.</li> </ul>
Urine Evidence	<ul style="list-style-type: none"> <li>▪ Urine samples are not analyzed for alcohol content.</li> <li>▪ Package urine in sterile specimen containers that have a <b>leak-proof cap</b>. The FDLE laboratory serving your area can recommend suitable containers.</li> <li>▪ Clearly label the urine specimen container with the subject's <b>first and last</b> name, collection date, time of collection, and initials of the person collecting the specimen.</li> </ul> <p>Urine Drug Analysis:</p> <ul style="list-style-type: none"> <li>▪ Detection times for many drugs are normally longer in urine than in</li> </ul>

	<p>blood.</p> <ul style="list-style-type: none"> <li>▪ Collect and submit at least 60 milliliters of sample (2 ounces) to the laboratory for urine drug analysis.</li> <li>▪ Urine samples collected within 12 hours from the time of offense may be tested for GHB, depending on the case information provided. After 12 hours, GHB is not normally detectable.</li> <li>▪ Urine collected up to 72 hours after the incident may be useful for detecting some but not all drugs.</li> </ul>
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**c. Common Drugs of Abuse:**

- Amphetamines (Methamphetamine, Ecstasy)
- Barbiturates (Downers)
- Benzodiazepines (Valium, Xanax)
- Carisoprodol (Soma)
- Cocaine
- Methadone
- Opioids (Heroin, Oxycodone, Codeine, Morphine, Hydrocodone)
- Tetrahydrocannabinols (Marijuana)

NOTE: Drugs which are not controlled under Florida Statute 893 (over-the-counter medications and many prescription medications) are not routinely included in drug analysis.

## **XXI. Trace Materials**

The primary function of the FDLE trace materials section is to examine, compare, and identify items which may be transferred in small quantities between persons/scenes/objects when they come into contact with one another. Trace Materials is referred to as “associative” evidence. The trace materials section examines paint, fibers, fabric marks/impressions, glass, fractured materials, polymers, and plastics.

Case Acceptance Policy for Trace Materials requests to include Glass, Fiber, Paint, Plastic/Adhesive and Fractured Materials examination:

- All Trace Materials requests are evaluated on a case-by-case basis by the Trace Materials Supervisor. Please include narratives and/or incident/accident reports with each case.
- Trace Materials examinations (of all types) will **not** be conducted:
  - on non-violent crime cases
  - if other probative evidence has been developed
  - on cases in which investigative information has established reliable, witnessed contact between the person(s) and object(s) involved
- Fiber examinations will not be conducted if the person(s) and object(s) involved are known to have routine contact.
- Some items may not be tested based on the individual case details and the likelihood of obtaining probative results. For example, in a paint exam related to a hit-and-run victim only the outermost clothing may be tested.

### **a. Fibers, Fabrics, and Fabric Marks**

Cross-transfer of fibers between the clothing of the victim and the assailant may take place in incidents of homicide, assault, and other crimes against persons. It may be possible to indicate contact between two individuals by comparing transferred fibers. It may also be possible to find evidence of association between the clothing of a subject and a textile material, e.g., carpet, at a particular scene. These types of fiber transfers are not visible to the unaided eye, and the items must be examined at the laboratory. Examination of these items may show:

- that a weapon retains fibers from the victim’s garment
- possible composition, construction, and manufacturer of the fabric or cordage
- the possibility that fibers and threads from a scene originated from a subject’s clothing
- possible contact between individuals or between individuals and objects such as vehicles
- that a piece of torn fabric originated from a particular damaged garment
- that a piece of rope from a scene is consistent with rope from a subject
- possible location of an occupant in a vehicle
- if an item was cut and/or torn

NOTE: Fiber examinations will **not** be conducted if other probative evidence has been developed. An exception must be granted by the trace materials supervisor for any fiber examination in cases where other probative evidence exists. Additionally, based upon the circumstances of the case and at the discretion of the trace materials supervisor, fiber examinations may not be conducted if the person(s) and object(s) involved are known to have routine contact.

Where to Find Fiber Evidence	<ul style="list-style-type: none"> <li>▪ Pieces of cloth may be found under the subject vehicle in hit-and-run cases.</li> <li>▪ Fabric marks often result from the impact between the car and the victim's clothing. These marks can appear as a series of striations or as a complete weave pattern.</li> <li>▪ Fibers may be found embedded in the vehicle's paint in a fabric mark. Embedded fibers, particularly when fused or melted, are difficult to see, so use side lighting and a magnifying lens to identify.</li> <li>▪ Cloth evidence may be found along the path of a subject's travel into or out of a building at a torn screen, broken window, fence, or other sharp edges.</li> <li>▪ To determine who was driving a subject vehicle, look for fabric markings in areas where the subject could come in contact with the inside of the vehicle, such as the dashboard, glove compartment, steering wheel, seat belts, airbags, and door panels.</li> </ul>
How to Collect Fiber Evidence	<ul style="list-style-type: none"> <li>▪ Handle items as little and as carefully as possible to prevent loss and possible contamination.</li> <li>▪ Do <b>not</b> attempt to reconstruct items. This may obliterate fine microscopic details used in comparison.</li> <li>▪ Collect and preserve items from all victim(s)/subject(s) as soon as possible after the incident.</li> <li>▪ Completely air dry all wet items, but keep away from fans as they will dislodge trace evidence.</li> <li>▪ Use tweezers to pick up threads or long fibers. Tape is not recommended for collecting fibrous evidence.</li> <li>▪ If the fibers are short, few in number, fused to an object, or not readily visible, try to send the entire item in a sealed package to the laboratory.</li> <li>▪ Do <b>not</b> try to remove fused or embedded fibers in an item.</li> <li>▪ It is important to collect fabric marks, embedded fibers, and paint samples from each damaged area of the vehicle.</li> <li>- Document the position of dents and abrasions on the vehicle.</li> </ul>



	<ul style="list-style-type: none"> <li>▪ If an area of a vehicle cannot be reasonably removed, photograph the damaged areas first. <ul style="list-style-type: none"> <li>- Use a tripod for maximum sharpness and detail.</li> <li>- The plane of the lens should be parallel to the surface bearing the mark.</li> <li>- Include a scale (a small ruler) in the photograph.</li> </ul> </li> <li>▪ After photographing a mark, carefully locate and remove any fibers, collect paint samples from near the mark, and finally, dust and lift the mark.</li> </ul>
How to Package Fiber Evidence	<ul style="list-style-type: none"> <li>▪ Package each item separately in brown paper bags.</li> <li>▪ Do not allow subject and victim clothing to contaminate each other.</li> <li>▪ Seal the top of the package by folding and taping the entire opening. <ul style="list-style-type: none"> <li>- Do <b>not</b> staple the opening because this creates holes where fibers can escape.</li> <li>- The integrity of the sealed package is critical, and violation of a sealed item may render it contaminated and not valid for fiber examinations.</li> </ul> </li> <li>▪ Utilize manila envelopes or pharmaceutical folds (also known as debris folds – refer to Figure 7) for long fibers, threads, or yarns.</li> <li>▪ Preserve fabric mark impressions intact using cardboard or other heavy <b>paper</b> materials over the damaged areas sealed at the edges.</li> <li>▪ Place entire vehicle part in a box or packaging paper and seal.</li> <li>▪ Do <b>not</b> wrap any item in colored/printed material. Always use white cotton or a white cotton/white polyester material.</li> <li>▪ Note on each package where the item(s) was/were located.</li> <li>▪ Do <b>not</b> package questioned and known items in the same container. Doing so may render any comparative examinations invalid.</li> </ul>
Submission of Fiber Evidence	<ul style="list-style-type: none"> <li>▪ Submit all appropriate clothing from all victim(s)/subject(s) to the laboratory for use as standards. <ul style="list-style-type: none"> <li>- Do <b>not</b> submit items from victim(s)/subject(s) known to have routine contact.</li> </ul> </li> <li>▪ If a fabric mark or fibers are found on an area of a vehicle that can reasonably be removed (bumpers, hoods, etc.), submit the entire area to the laboratory.</li> <li>▪ An entire vehicle may be transported and submitted to the laboratory for examination. Do <b>not</b> drive this vehicle.</li> <li>▪ Send photographs taken of indentations, damage, and fabric marks on a vehicle with indication of location on the vehicle.</li> <li>▪ Submit entire rope/cord. If rope/cord must be cut, specify which end(s) was/were cut by taping and labeling those ends.</li> </ul>

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|  | <ul style="list-style-type: none"><li>▪ Do <b>not</b> submit traps from sink drains, filters from dryers, home vacuum bags, vacuumings from hotel/motel rooms, rental cars, etc.</li></ul> |
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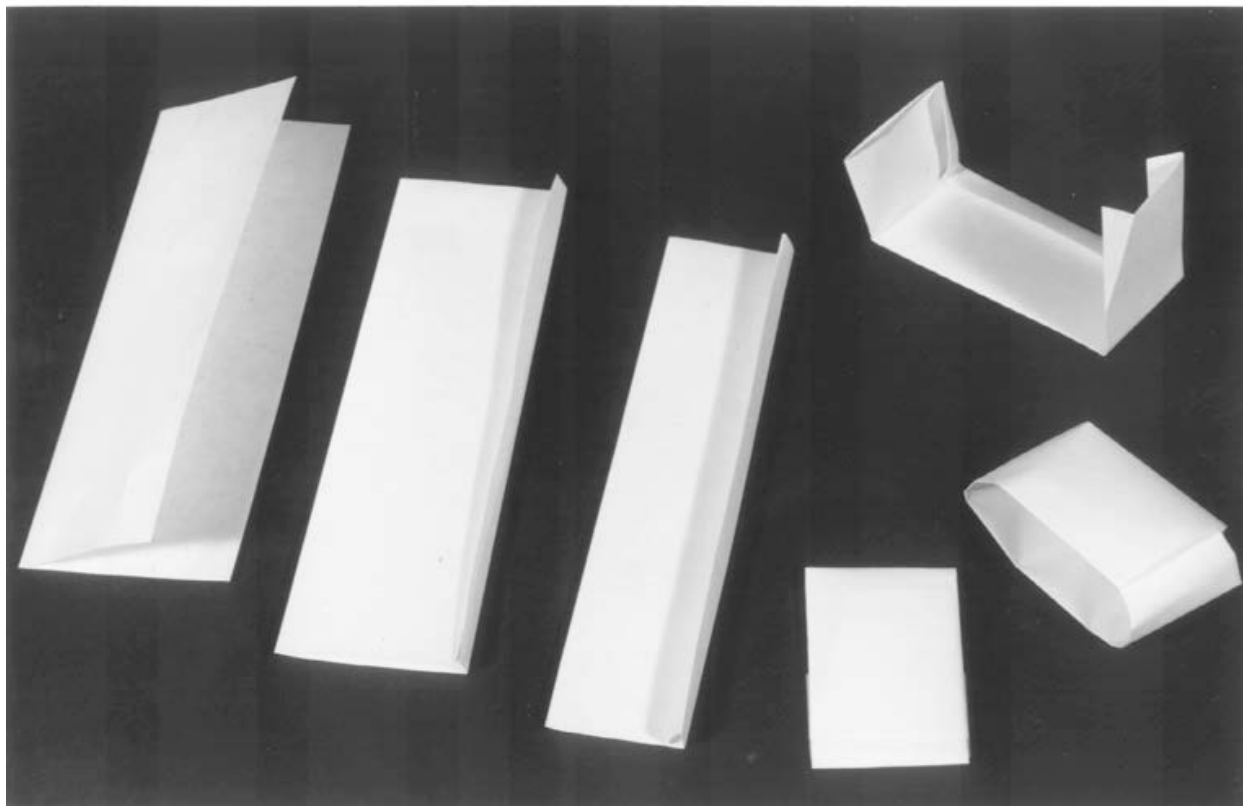


Figure 7 – Pharmaceutical /Apothecary Packet/Debris Fold

Gently place or move the evidence to the center, then fold the paper so that no edges are left open. Tape the small packet securely and label appropriately.

## **b. Glass**

Whenever glass is broken in a criminal act, the glass evidence may be useful in the investigation. Windows broken in homicides or home invasions, broken vehicle windows and windshields in hit-and-run cases, or bottles used in assaults are just some of the circumstances in which glass evidence may occur.

Examination of glass evidence may reveal:

- If the material is glass and the type of glass from which a fragment originated, e.g., tempered window, non-tempered window, headlight, bottle, etc.
- a physical match of glass fragments from two sources to establish a common origin
- whether questioned and known glass samples could have originated from the same source of broken glass
- the side to which force was applied in the case of broken windows or other glass sheets
- the sequence of bullet holes in certain glass sheets

NOTE: Glass examinations will **not** be conducted if other probative evidence has been developed. An exception must be granted by the trace materials supervisor for any glass examination in cases where other probative evidence exists.

Where to Find Glass Evidence	<ul style="list-style-type: none"> <li>▪ Suspect drivers in hit-and-run cases may have glass particles adhering to their clothing if broken glass was involved.</li> <li>▪ Glass particles may be found: <ul style="list-style-type: none"> <li>- in a subject's hair</li> <li>- in a subject's car</li> <li>- on a subject's clothing</li> <li>- embedded in a subject's shoes</li> <li>- on the ground of a crime scene</li> </ul> </li> </ul>
How to Collect Glass Evidence	<ul style="list-style-type: none"> <li>▪ The subject's hair can be combed over white paper to recover any glass particles that may be present. Fold paper into a debris fold (refer to Figure 7)</li> <li>▪ Collect clothing (not just shoes) from subjects. <ul style="list-style-type: none"> <li>- Clothing is generally of more value than footwear when it comes to the evidential significance of any found glass particles.</li> </ul> </li> <li>▪ Collect glass from each broken source of a suspected vehicle because more than one source of glass may be present in the evidence. <ul style="list-style-type: none"> <li>- When possible, collect glass directly from the primary source (i.e. broken window frame) rather than from a secondary source (i.e. floor or car seat).</li> <li>- Take note that vehicle windshields are constructed of laminated glass and have two panes of glass; control samples of both inside and outside glass should be taken.</li> <li>- Be sure to note which is inside and which is outside on vehicle windshield samples.</li> </ul> </li> <li>▪ For direction of force or sequencing of impacts of vehicle glass, the fractures should be preserved and documented as they appear <b>prior</b> to moving the vehicle. Transporting a vehicle after a glass-breaking event may change some fractures or cause glass to be lost, which might lead to inconclusive results. <ul style="list-style-type: none"> <li>- Secure the broken window with tape or a plastic film.</li> <li>- Document the fractures with high quality, high resolution images of the holes/impacts taken in normal and macro settings, with and without a flash.</li> <li>- Please contact the trace materials section in Orlando for further guidance if necessary.</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>▪ Collect all glass at a scene if a fracture match, direction of force, or sequence of breakage examination is requested. <ul style="list-style-type: none"> <li>- If the direction of force is requested to be determined, indicate the inside or outside on these fragments remaining in the window frame.</li> </ul> </li> <li>▪ Small glass fragments require control samples to be taken from all potential sources of broken glass, so collect at least a handful of each broken window for comparison.</li> <li>▪ When tiny glass fragments are to be compared to a source of broken glass other than a window (such as a bottle, vase, or lamp), collect and submit the entire broken object to be used as a control/standard.</li> </ul>
How to Package Glass Evidence	<ul style="list-style-type: none"> <li>▪ Mark and package separately the clothing and shoes of suspects and any other objects that may be contaminated with glass.</li> <li>▪ Package glass from different sources and locations separately.</li> <li>▪ Place fragments in plastic containers, then in bags or envelopes and seal and mark appropriately.</li> <li>▪ Do <b>not</b> package small glass fragments in paper envelopes or bags without first being placed in leak proof containers.</li> <li>▪ Mark the inside and outside of glass from laminated glass sources such as windshields.</li> <li>▪ Place large glass shards in bags or boxes, but separate individual pieces with newspaper to prevent breakage and damage to edges. Mark inside or outside of glass and pack together in a single marked container.</li> </ul>

### c. Paint

Paint is one of the most common types of evidence encountered. It is most likely to be found in hit-and-run cases. Examination of paint samples may show:

- the possible year, make, model of a vehicle from which a paint sample originated
- whether or not two samples could have come from a common source
- that a paint fragment originated from one source to the exclusion of all others
- that paint was transferred as a result of a forceful impact

NOTE: Paint examinations will **not** be conducted if other probative evidence has been developed. An exception must be granted by the trace materials supervisor for any paint examination in cases where other probative evidence exists.

How to Collect Paint Evidence	<ul style="list-style-type: none"> <li>▪ Before collecting paint samples, check for any toolmarks present which could be sent to the FBI for analysis.</li> <li>▪ Using a short strip of tape on one side of a paper packet attach it to</li> </ul>
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	<p>the object containing the specimen, then the paint can be chipped loose into the envelope or package with a clean knife blade or razor blade.</p> <ul style="list-style-type: none"> <li>- Do <b>not</b> use gummed tape to collect paint samples.</li> <li>▪ Always use a new blade for each sample to prevent contamination.</li> <li>▪ Be sure to recover all paint layers down to the base material, if entire item cannot be submitted.</li> <li>▪ On vehicles involved in hit-and-runs, collect known samples from all areas displaying fresh damage for comparison. Paint may vary in type or composition in different locations, even though the color appears the same.</li> <li>▪ Collect samples of foreign paint present from each damaged area.</li> <li>▪ Collect loose paint chips.</li> <li>▪ If transfers are smeared onto a painted surface, chip the underlying paint bearing the transfer from the surface or submit the entire item for examination.</li> <li>▪ If a paint smear is found on an unpainted surface, submit the entire part, item, or area if at all possible.</li> <li>▪ Do <b>not</b> attempt to remove paint from clothing.</li> <li>▪ Do <b>not</b> remove paint samples by scraping the surface of the vehicles.</li> </ul>
How to Package Paint Evidence	<ul style="list-style-type: none"> <li>▪ Place each sample collected from different areas in separate containers, and label with where sample was collected.</li> <li>▪ Markings placed on labels, envelopes, or other containers should include date and time of collection and specific sources of the sample.</li> <li>▪ Use paper packets, envelopes, and glass vials as containers. <ul style="list-style-type: none"> <li>- Do <b>not</b> put paint directly in paper envelopes. Fold and seal in sheets of white paper first to prevent loss.</li> </ul> </li> <li>▪ Package clothing in paper bags after air drying thoroughly.</li> <li>▪ Do <b>not</b> package questioned and known paint samples in the same container. Doing so may render any comparative examinations invalid.</li> </ul>
Submission of Paint Evidence	<ul style="list-style-type: none"> <li>▪ Submit entire item bearing foreign paint.</li> <li>▪ Send entire item to the laboratory if the paint sample is very small or difficult to remove.</li> <li>▪ When completing the Prelog form, include the following information: <ul style="list-style-type: none"> <li>- color, year, make, model, and VIN of each vehicle from which samples are being submitted.</li> <li>- the specific source of the samples and whether they are questioned</li> </ul> </li> </ul>

	<p>or known samples (i.e. “paint standard from the fender of a Ford F150” or “suspected paint transfer from the fender of a Ford F150”)</p> <ul style="list-style-type: none"> <li>▪ Submit a copy of the crash or incident report, as well as any available crime scene photographs related to the collection of paint evidence. These can be most easily submitted in the form of a CD or DVD.</li> </ul>
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#### **d. Plastic and Adhesives**

Plastics are being used in an ever-expanding number of modern products that may be encountered as physical evidence. Examples include plastic parts of automobiles in hit-and-run cases, duct tape, electrical tape, plastic garbage bags, knife handles, mastics (glues), caulks, sealants, vehicle bumper rub strips, etc. Examination of these may reveal:

- that a transfer is a plastic, adhesive, or rubber along with some of its characteristics, such as color, polymer type, elemental composition, and possible end-use applications
- that a physical match of fractured or torn edges on items from two different sources establish a common origin
- that physical and chemical characteristics of samples from two different sources are like one another and the two could have a common origin
- that questioned garbage bag(s) were manufactured by the same company and in the same plant and at approximately the same time as the remaining box of garbage bags
- that transfers on the clothing of occupants in a vehicle involved in an accident indicate who was sitting in which position

NOTE: Plastic and adhesive examinations will not be conducted if other probative evidence has been developed. An exception must be granted by the trace materials supervisor for any plastic and adhesive examinations in cases where other probative evidence exists.

Collection and Submission of Plastic and Adhesive Evidence:

- Transfer smears should be submitted by packaging the object with the smear on its surface. Avoid trying to scrape the smear from the substrate surface, if at all possible.
- If the transfer smear must be removed for submission to the lab, be sure to obtain a control sample of the substrate material approximately one inch away from the area of the smear.
- If a physical match examination is desired, remember to collect and submit all fractured or torn pieces.
- Do not process fragments or pieces for latent prints prior to the plastics examination. This could result in chemical contamination of the samples.

- Recover and submit all plastic bags when requesting a plastic bag comparison. When acquiring known samples for comparison, remember to search accessible trash receptacles both inside and outside the residence.
- When collecting known sources of plastic from a vehicle, remember to package each different part in a separate container and label appropriately.
- When fragments of vehicle plastic of adequate size are recovered, ask employees of local dealerships, new vehicle part stores, or auto dismantlers to identify the year, make, and model of the vehicle from which the parts originated.
  - If numbers or letters are present on the fragments, call the laboratory with the information to identify or at least narrow down potential vehicle manufacturers.

#### **e. Fractured Materials/Physical Matches**

It is possible to examine fractured, torn or cut items to determine whether or not they at one time formed a single, intact item. These items may include a broken car part, knives, tapes, lenses, boards, etc.

- Each piece of the item in question should be packaged separately taking care to avoid any further damage to the fractured surfaces of the pieces.
- Mark each package where the item(s) was/were located.
- Submit all rolls of tape found. If the questioned or known tape must be cut, specify which area/end(s) was/were cut by labeling those ends.
- Submit all pieces found at the scene involving a vehicle.
- Do **not** attempt to reconstruct items. This may obliterate fine microscopic details used in comparison.
- Do **not** process items for latent prints prior to submitting.
- Compositional analysis of building material (e.g. brick, mortar, plaster, stucco, cement, or concrete), soils, and safe insulation evidence is not performed at FDLE. The trace materials section **can** perform fracture matches on this material though. Contact the FBI if your request goes beyond the capabilities of the trace materials section.

## **XXII. Using the Laboratory in the Judicial Process**

In addition to conducting examinations and comparisons of various types of physical evidence, analysts are available to present expert testimony concerning their findings before the courts. In order to be of maximum assistance, the following procedures should be followed:

- Notify the analyst as far in advance of the trial as possible so that time will be available for proper court preparation.
- Due to the number of cases being handled by each analyst, conflicts in court appearance dates may occur. When sufficient advance notice is given of scheduled trials, many of these conflicts can be satisfactorily resolved.
- The individual who signs the submitted reports is the analyst responsible for the evidence examinations. Notice to appear in court should be sent to this person with specific reference to the FDLE laboratory case number.
- Analysts must be requested to appear as witnesses by having a subpoena served on them in compliance with rules of procedure.
- For all cases, in addition to the subpoena to appear in court, information should be furnished as to the actual date and approximate hour when the analyst will be needed. Time spent waiting outside of courtrooms while juries are being selected or other witnesses are being examined can amount to many days. The waiting time precludes more constructive work at the laboratory and interferes with other court appearances.
- Immediately notify the appropriate analyst of any change in trial or appearance dates. Often analysts have arrived to testify on specific cases only to find that the defendant has changed the plea to guilty or the case was continued.
- In contacting the laboratory concerning a specific case, use the laboratory case number from the report.
- The laboratory issues an electronic report to the submitting agency. If any other documentation is needed, a public records request should be submitted to [publicrecords@fdle.state.fl.us](mailto:publicrecords@fdle.state.fl.us).
- Normally a charge is not made for expert testimony or any other laboratory service; however, in specific situations, such as a civil trial arising out of a criminal case, or a court-ordered defense examination (when cause has been shown per Florida Statute 943.33), certain charges will be assessed, i.e., examination, travel and testimony time, an administrative fee, and actual travel costs.
- Analysts provide expert testimony as it relates to their findings.
- It is not within an FDLE analyst's scope of work to give opinions about forensic work not performed under the direction of FDLE and they should not be asked to provide opinions, analysis or assistance with challenging non-FDLE experts.
- Analysts will not provide 'off the record' information or unsworn testimony about their opinions or analysis except in testimony preparation with the State.